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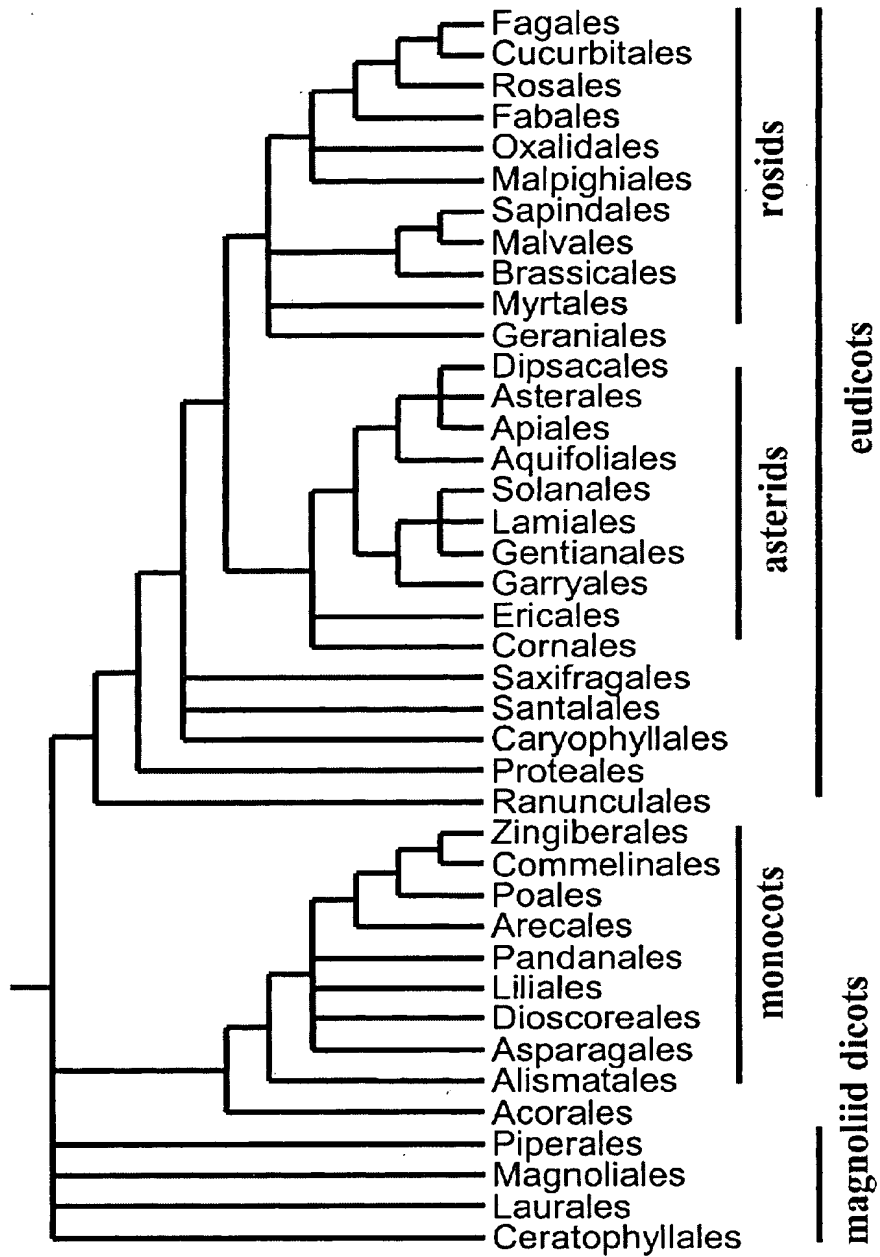


FIGURE 1

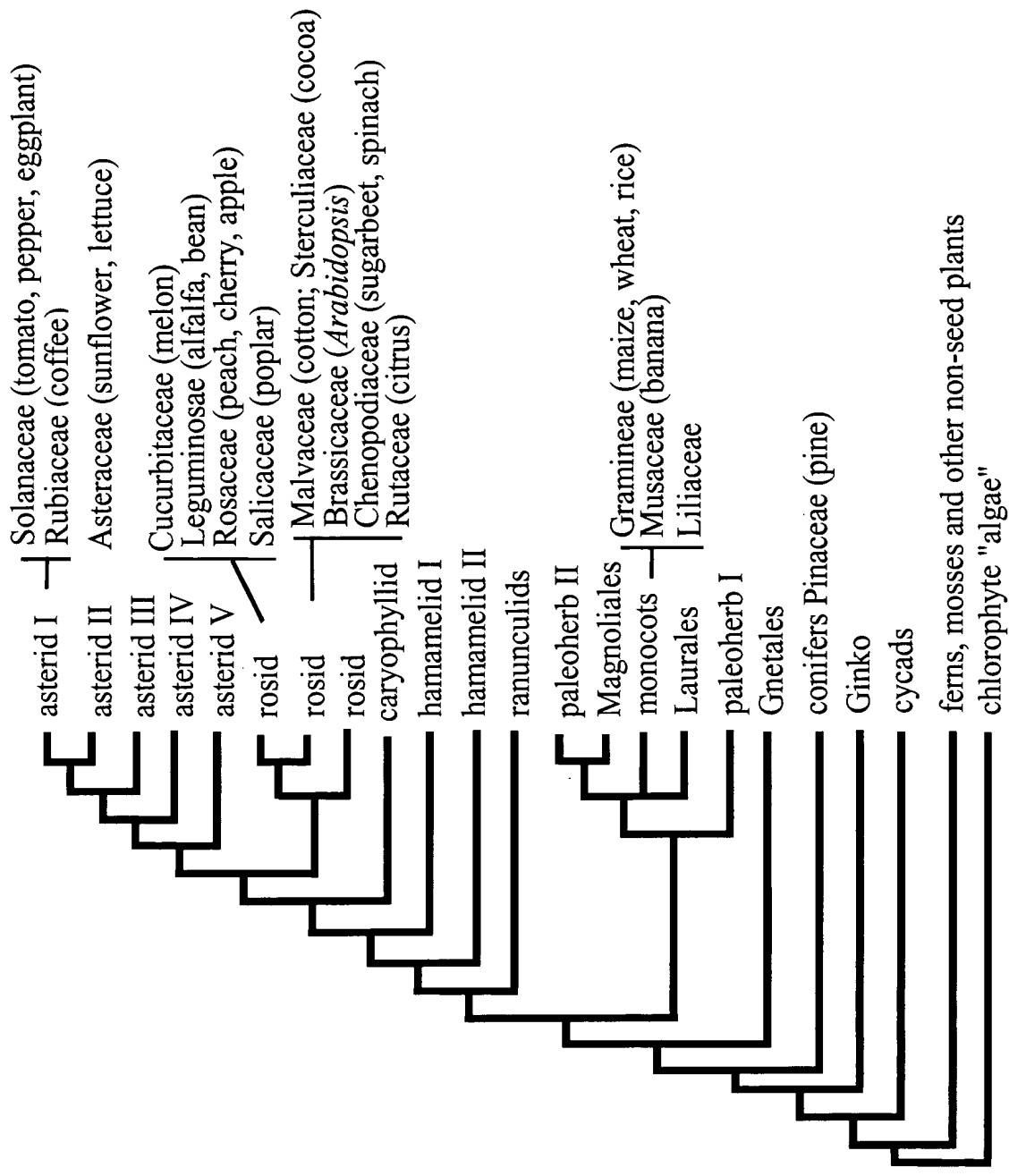


FIGURE 2

	10	20	30
pG912		M N P F Y S T F P D S F L	
pG42		M N - - S F S A F S E M	
pG41		M N - - S C S A F S E M	
pG40		M N - - S F S A F S E M	
pG1090			
pG867		M E S S V D E S T T S T G S I C E T P A I T P	
pG3656-Maize			
pG24			
pG12			
pG1379			
pG1277			
pG872			
pG2576			
pG3655-rice(jap)			
pG3653-rice(jap)			
pG3652-rice(jap)			
pG3654-rice(jap)			
pG47			
pG3645-B_rapa			
pG3646-B_oleracea			
pG2133			
pG3647-Zinnia_elegans			
pG3648(partial)-Medicago			
pG3643-soy			
pG3651-rice(jap)			
pG3644-rice(jap)			
pG3650(partial)-Maize			
pG3649-rice(jap)			
pG3657-rice(jap)			
pG2294			
pG2115			

FIGURE 3A

pG912	S I S D H R S S P V S S D S S E C S S P K L A S S C P K K R A G R	40	50	60
pG42	F G S D Y E S S V S S G G D Y I P T L A S S C P K K P A G R			
pG41	F G S D Y E S S V S S G G D Y S P K L A T S C P K K P A G R			
pG40	F G S D Y E P - - - Q G G D Y C P T L A T S C P K K P A G R			
pG1090	A K K S S V G N L Y R M G S G S S V V L D S E N G V E A E S			
pG867	M E A E Q A A M A P Q L G A A H Q Q T Q P R			
pG3656-Maize	M E T E A A V T A T V T P A V T V A A V A T R K R D -			
pG24	M E T A T E V A T V V S T P A V T V A A V A T R K R D -			
pG12	M E G G V A D V A V P G T R K R D -			
pG1379	M D A G V A V K A D V A V K M K R E -			
pG1277	M V K Q A M K E E K K R N T A			
pG872	M E G S - - S S S			
pG2576	M E G S - - S S S			
pG3655-rice(jap)	M S S P M E P V S F M Q K S A A A A D G G S A A Q A A A			
pG3653-rice(jap)	L E L F E F C R H N S F L D L S L H F M Q A N G T S P A P -			
pG3652-rice(jap)	M Q A N T T Q P A P E			
pG3654-rice(jap)	M S S S S A			
pG47	M D Y R E S T G E S -			
pG3645-B_rapa	M D Y I D N T V E T -			
pG3646-B_oleracea	M D P R D - G G E T H			
pG2133	M D S R R D - T G E T D			
pG3647-Zinnia_elegans	M S T S S D E G N C L S			
pG3648(partial)-Medicago	M N W S T S T S T S D D S			
pG3643-soy	M S R S S A M H G I T S T N			
pG3651-rice(jap)	R T E R D H G E V D L S S P E E A M S R A E C G G G E E E E			
pG3644-rice(jap)	R T E R D H G E V D L S S P E E A M S R A E C G G G E E E E			
pG3650(partial)-Maize	D G R P T T I S R A A T N S G - A E R			
pG3649-rice(jap)	M G R V A A S G G G G G E			
pG3657-rice(jap)	N K C I A A A G A T A A A G L G G G A A S C S G G G D G K			
pG2294	M V K T L Q K T P K R M S S P S S S S S S S			
pG2115	K I Q T S S T K K E M P L S S P S S S S S S S			

FIGURE 3B

pG912
 pG42
 pG41
 pG40
 pG1090
 pG867
 pG3656-Maize
 pG24
 pG12
 pG1379
 pG1277
 pG872
 pG2576
 pG3655-rice(jap)
 pG3653-rice(jap)
 pG3652-rice(jap)
 pG3654-rice(jap)
 pG47
 pG3645-B_rapa
 pG3646-B_oleracea
 pG2133
 pG3647-Zinnia_elegans
 pG3648(partial)-Medicago
 pG3643-soy
 pG3651-rice(jap)
 pG3644-rice(jap)
 pG3650(partial)-Maize
 pG3649-rice(jap)
 pG3657-rice(jap)
 pG2294
 pG2115

120	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
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FIGURE 3D

	160	170	180
pG912	I P E T T C - - - - -	- - - - -	P K - - -
pG42	I P E S T C - - - - -	- - - - -	A K - - -
pG41	I P E S T C - - - - -	- - - - -	A K - - -
pG40	I P E S T C - - - - -	- - - - -	A K - - -
pG1090	R P E S S S - - - - -	- - - - -	S E - - -
pG867	F L N S H S K S E - - - -	- - - - -	I V D M L R K H T Y N E E L E Q
pG3656-Maize	L A D G V D V G E H A R D P A A A A G G G G C T L S A A	- - - - -	- - - - -
pG24	V S N G G G R - - - - -	- - - - -	G G D L S A A A
pG12	V T G G G G G - - - - -	- - - - -	G V N G G G D M S A A
pG1379	F S D E - - - - -	- - - - -	D M S A A
pG1277	T S A E - - - - -	- - - - -	D M S A A
pG872	V E K S L T - - - - -	- - - - -	P - - - -
pG2576	G G R N L S - - - - -	- - - - -	R S - - -
pG3655-rice(jap)	A A R T G D - - - - -	- - - - -	L R - - -
pG3653-rice(jap)	V A R T S D - - - - -	- - - - -	P R R - -
pG3652-rice(jap)	V A R T T D - - - - -	- - - - -	P R R - -
pG3654-rice(jap)	V A R T S D - - - - -	- - - - -	P Q - - -
pG47	L V S R T S - - - - -	- - - - -	P R R - -
pG3645-B_rapa	I V S K T S - - - - -	- - - - -	P R R - -
pG3646-B_oleracea	L A S N T S - - - - -	- - - - -	P K - - -
pG2133	L A S N I S - - - - -	- - - - -	P K - - -
pG3647-Zinnia_elegans	A R T D L S - - - - -	- - - - -	P R R - -
pG3648(partial)-Medicago	C I Q Q R D N - - - - -	- - - - -	L M S P R R
pG3643-soy	S V Q L R D - - - - -	- - - - -	M S P R R
pG3651-rice(jap)	R T A A A V A - - - - -	- - - - -	R L S P R R
pG3644-rice(jap)	G G A A V A - - - - -	- - - - -	R L S P R R
pG3650(partial)-Maize	A C G G Q Q P - - - - -	- - - - -	L S P R R
pG3649-rice(jap)	S Y G G A G G - - - - -	- - - - -	L L S P R R
pG3657-rice(jap)	R L D I H R G G T - - - -	- - - - -	D S A A G D M S P R R
pG2294	H I I N N G - - - - -	- - - - -	D N N N - D M S P K
pG2115	L L D N L L - - - - -	- - - - -	D E N T - L L S P K

	220	230	240
pG912	- T A A E A E E A A G E G - - V R E G E R R A E E - - - - Q		
pG42	- H G F D M E E T L V E A - - I Y T A E - - - - - Q		
pG41	- H G L D M E E T L V E A - - I Y T P E - - - - - Q		
pG40	- H G L D M E E T M V E A - - I Y T P E - - - - - Q		
pG1090	- S G Q G L S R V G L S P - - - D Q - - - - - I Q		
pG867	T T G F R S A E A L F E K A V T P S D V G K L N R L V I P K		
pG3656-Maize	- H H R E R H H N - - - - - - - - - - - - - - -		
pG24	- - - - - T G G - - - - - E N R G D Y - - - - -		
pG12	- H H H H Q H Q R G N H D Y V D N H S D Y R I - - - - N		
pG1379	- R H R V F G Q N R D S D - - V D N K N F H R N Y Q N G E R		
pG1277	- R R R V F S Q K R D - - - - - - - - - - - - - -		
pG872	V P G S E I R P E S - - - - - P S T S - - - - - A		
pG2576	- A G Y E I R Q E S - - - - - A S T S - - - - - M		
pG3655-rice(jap)	- P A Q V A T E E - - - - - - - - - - - - - -		
pG3653-rice(jap)	- -		
pG3652-rice(jap)	- E A H S F K E E A Q - - V E E K T - - - - - A		
pG3654-rice(jap)	- S A L P W E E A P V V A - - A Q E A A - - - - - A		
pG47	- - - T S V N S G C G D T - - T T Y Y E - - - - - N		
pG3645-B_rapa	- D H A S G N S G N G D T - - T T A Y C - - - - - E		
pG3646-B_oleracea	- D S A S G G V E E G - - - - - T - - - - - E		
pG2133	- S - G S G G C E E R S S - - M A N M E - - - - - E		
pG3647-Zinnia_elegans	- D T T P T N E A L N - - - - - - - - - - - - - -		
pG3648(partial)-Medicago			
pG3643-soy	- K T S T V G A E T N C E - - S D E R T - - - - - S		
pG3651-rice(jap)	- D P A R - P A P A T A Y - - A R P D H - - - - - C		
pG3644-rice(jap)	- D A A P A P A T A Y - - A R P D H - - - - - C		
pG3650(partial)-Maize	- A A L A S P P V V Q P - - A - - A - - - - - L		
pG3649-rice(jap)	- R D H P - P A A A A S - - S S G S G - - - - - V		
pG3657-rice(jap)	E A M S S T P T S G A T S - - L S T L G - - - - - S		
pG2294	S V S T S S P L L S S - P - - S E D L Y - - - - - D		
pG2115	S S A V S S P S D H D H H - - H D D G M - - - - - Q		

FIGURE 3H

	250	260	270
pG912	N G G V F Y M D D E A L L G M P	- - - - -	- - - - -
pG42	S E N A F Y M H D E A M F E M P	- - - - -	- - - - -
pG41	S Q D A F Y M D E E A M L G M S	- - - - -	- - - - -
pG40	S E G A F Y M D E E T M F G M P	- - - - -	- - - - -
pG1090	A I N E S P L D S P R - - - - -	- - - - -	- - - - -
pG867	H H A E K H F P L P S S N V S V K G V L L N F E D V N G K V	- - - - -	- - - - -
pG3656-Maize	- - - - - H L P Q L - - - - -	- - - - -	- - - - -
pG24	E K I E N C R - - - - -	- - - - -	- - - - -
pG12	D D L M E C S S K E G F - - - - -	- - - - -	- - - - -
pG1379	E E E E D E D D K R L - - - - -	- - - - -	- - - - -
pG1277	- - - - - - - - - - -	- - - - -	- - - - -
pG872	S V A T S T V D Y D F S - - - - -	- - - - - F L D L L P M -	- - - - -
pG2576	D V D S E F L S M L P T V G S G N - - - - -	- - - - - F A S E F G L -	- - - - -
pG3655-rice(jap)	- - - S D G V V R G N A - - - - -	- - - - - A P P P V Q V -	- - - - -
pG3653-rice(jap)	- - - - - - - - - - -	- - - - - - - - - - -	- - - - -
pG3652-rice(jap)	E E S S D V V R A N A A - - - - -	- - - - - P P P P V Q V -	- - - - -
pG3654-rice(jap)	D M A P D V V V L P S S - - - - -	- - - - - P V N V L A A -	- - - - -
pG47	G A D Q V - - - - -	- - - - - - - - - - -	- - - - -
pG3645-B_rapa	N G G - - - - -	- - - - - - - - - - -	- - - - -
pG3646-B_oleracea	R E T - - - - -	- - - - - - - - - - -	- - - - -
pG2133	E D K - - - - -	- - - - - - - - - - -	- - - - -
pG3647-Zinnia_elegans	- - - - - - - - - - -	- - - - - - - - - - -	- - - - -
pG3648(partial)-Medicago	- - - - - - - - - - -	- - - - - - - - - - -	- - - - -
pG3643-soy	T A S V C N V V G E G G A D H S D V F W W D D D G G S	- - - - -	- - - - -
pG3651-rice(jap)	A G A T T A R H D E L A R - - - - -	- - - - - R G M Y G A H -	- - - - -
pG3644-rice(jap)	A G A T T A R H D E L A R - - - - -	- - - - - R G M Y G A H -	- - - - -
pG3650(partial)-Maize	A G I Y W R R R A R R R R - - - - -	- - - - - R R A R P R V -	- - - - -
pG3649-rice(jap)	A G D G A R K Q G T R G E V - - - - -	- - - - - S D T Y W C R -	- - - - -
pG3657-rice(jap)	S G G G D V L D H A T T P S S S S S A A N V C S P P L E G	- - - - -	- - - - -
pG2294	V V S M S Q Y D Q Q V S L S E S S S - W Y N C F D G D	- - - - -	- - - - -
pG2115	S L M G S F V D N H V S L M D S T S S W Y D D H N G	- - - - -	- - - - -

FIGURE 3I

	280										290										300											
pG912	-	-	-	N	F	F	E	N	M	A	E	G	M	L	L	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG42	-	-	-	S	L	L	A	N	M	A	E	G	M	L	L	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG41	-	-	-	S	L	L	D	N	M	A	E	G	M	L	L	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG40	-	-	-	T	L	L	D	N	M	A	E	G	M	L	L	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG1090	-	-	-	M	G	W	M	Q	D	L	E	V	A	D	Y	E	L	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG867	W	R	F	R	Y	S	Y	W	N	S	S	Q	S	Y	V	L	T	K	G	W	S	R	F	V	K	-	-	-	-	-	-	
pG3656-Maize	-	-	-	-	R	V	H	A	E	E	Q	Q	E	E	E	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG24	-	-	-	-	K	S	G	N	G	S	L	E	R	V	D	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG12	-	-	-	-	K	R	C	N	G	S	L	E	R	V	D	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG1379	-	-	-	-	R	S	G	G	R	L	L	D	R	V	D	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG1277	-	-	-	-	-	-	F	G	G	L	L	E	L	V	D	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG872	-	-	-	N	F	G	F	D	S	F	S	D	D	F	S	G	F	S	-	-	-	-	-	-	-	-	-	-	-	-	G	
pG2576	-	-	-	F	P	G	F	D	D	F	S	D	E	Y	S	G	D	R	-	-	-	-	-	-	-	-	-	-	-	-	F	
pG3655-rice(jap)	-	-	-	A	A	G	S	L	D	W	S	Q	F	M	A	N	P	P	M	Y	S	P	T	A	T	A	G	S	Q	-	-	
pG3653-rice(jap)	-	-	-	S	G	G	G	D	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3652-rice(jap)	-	-	-	A	G	S	F	D	W	S	Q	L	P	L	Y	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3654-rice(jap)	-	-	-	A	G	S	F	E	Y	W	S	Q	Q	P	L	Y	S	P	-	-	-	T	A	A	S	L	D	L	Q	-	-	
pG47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3645-B_rapa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3646-B_oleracea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG2133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3647-Zinnia_elegans	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3648(partial)-Medicago	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3643-soy	-	-	-	-	W	H	G	S	G	G	D	S	T	E	R	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3651-rice(jap)	-	-	-	-	A	H	A	A	G	A	N	A	R	T	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3644-rice(jap)	-	-	-	-	A	H	A	A	G	A	N	A	R	T	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3650(partial)-Maize	-	-	-	-	R	A	G	A	A	K	Q	R	R	W	Q	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3649-rice(jap)	-	-	-	-	N	G	E	D	G	S	R	S	R	S	S	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3657-rice(jap)	D	H	E	L	W	T	E	L	D	A	F	A	S	P	K	F	M	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG2294	-	-	-	D	Q	F	M	F	I	N	G	V	S	A	P	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG2115	-	-	-	M	F	L	F	D	N	G	A	P	F	N	Y	S	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FIGURE 3J

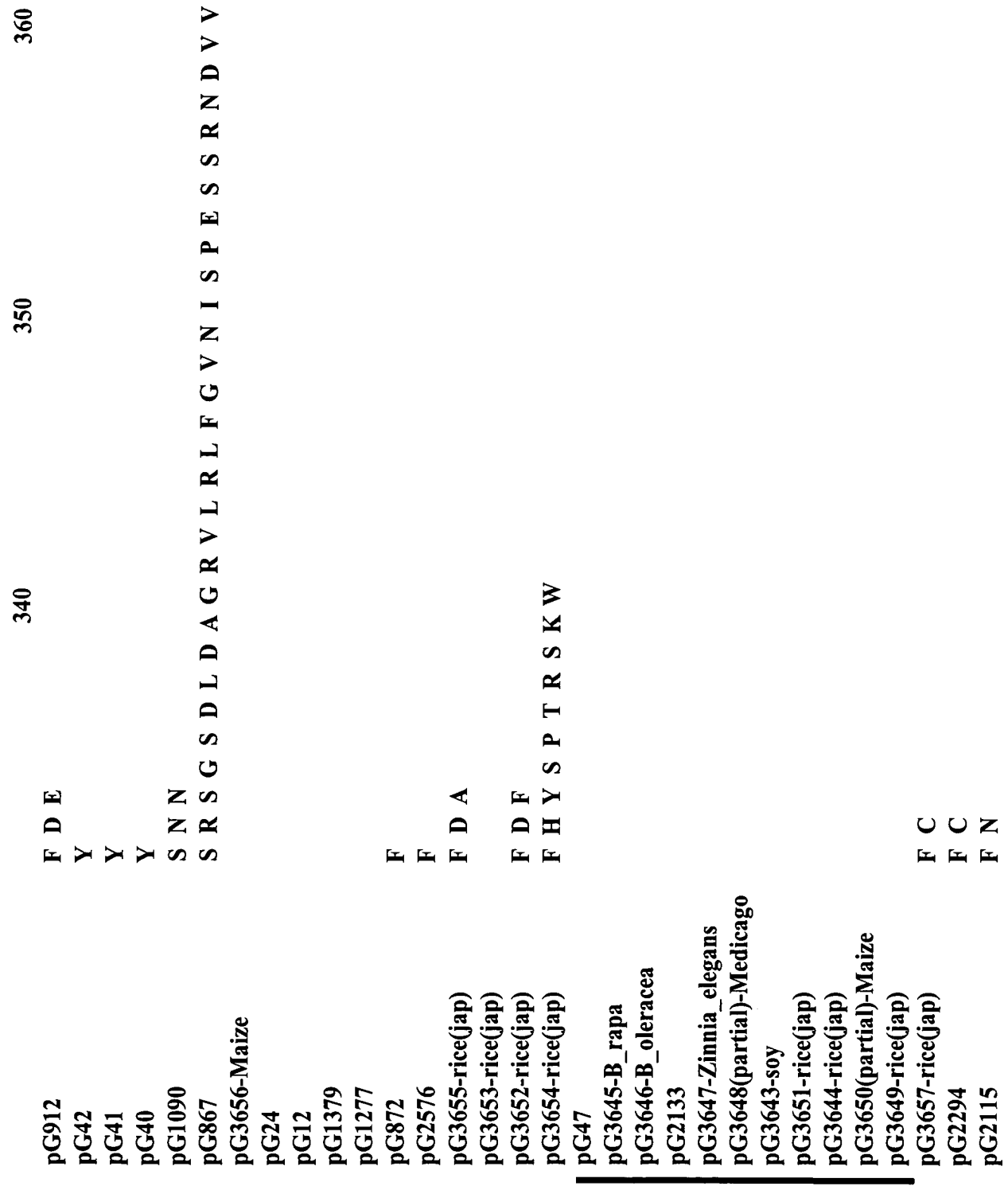


FIGURE 3L

370 380 390



FIGURE 3M

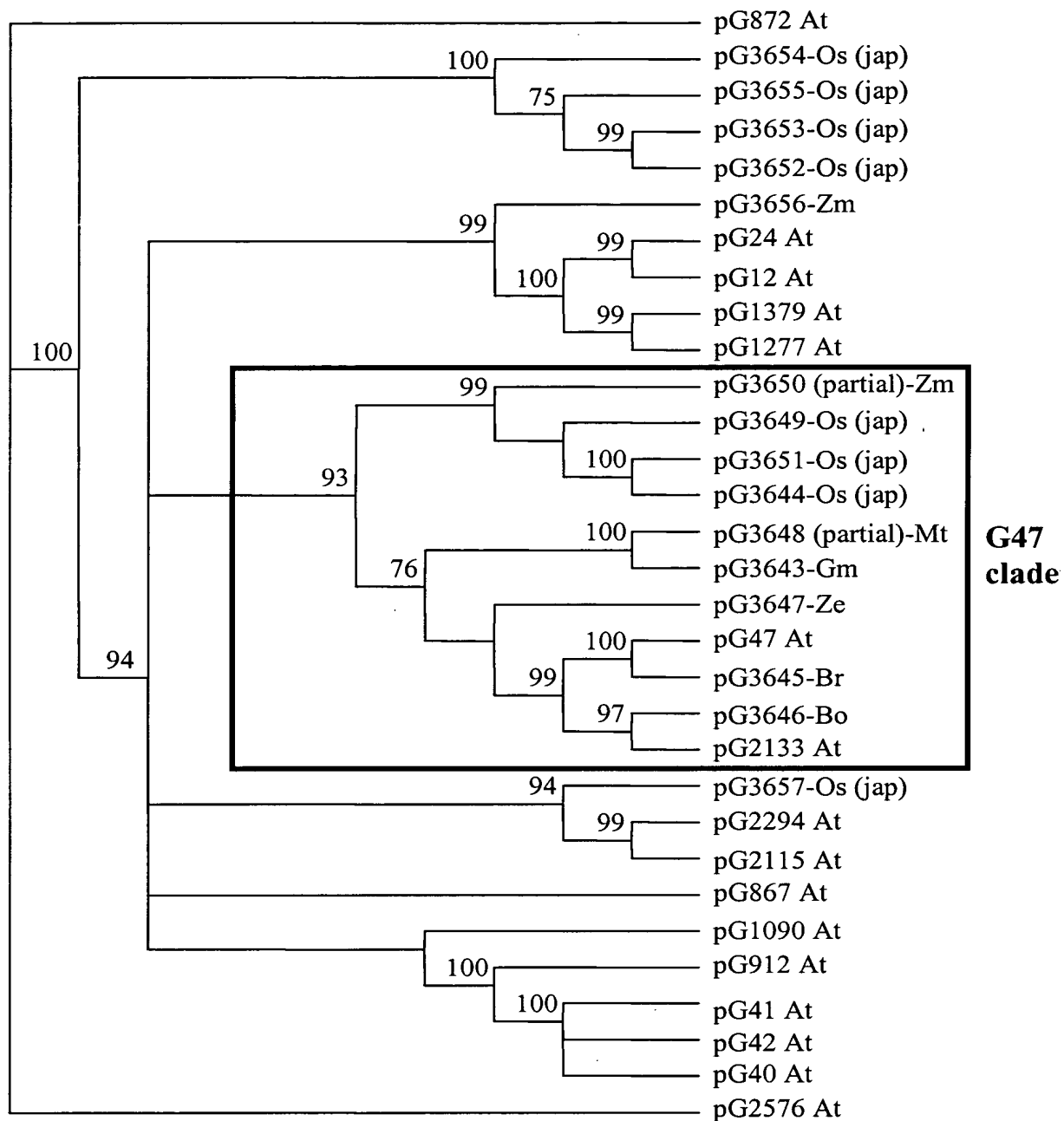


FIGURE 4

Figure 5

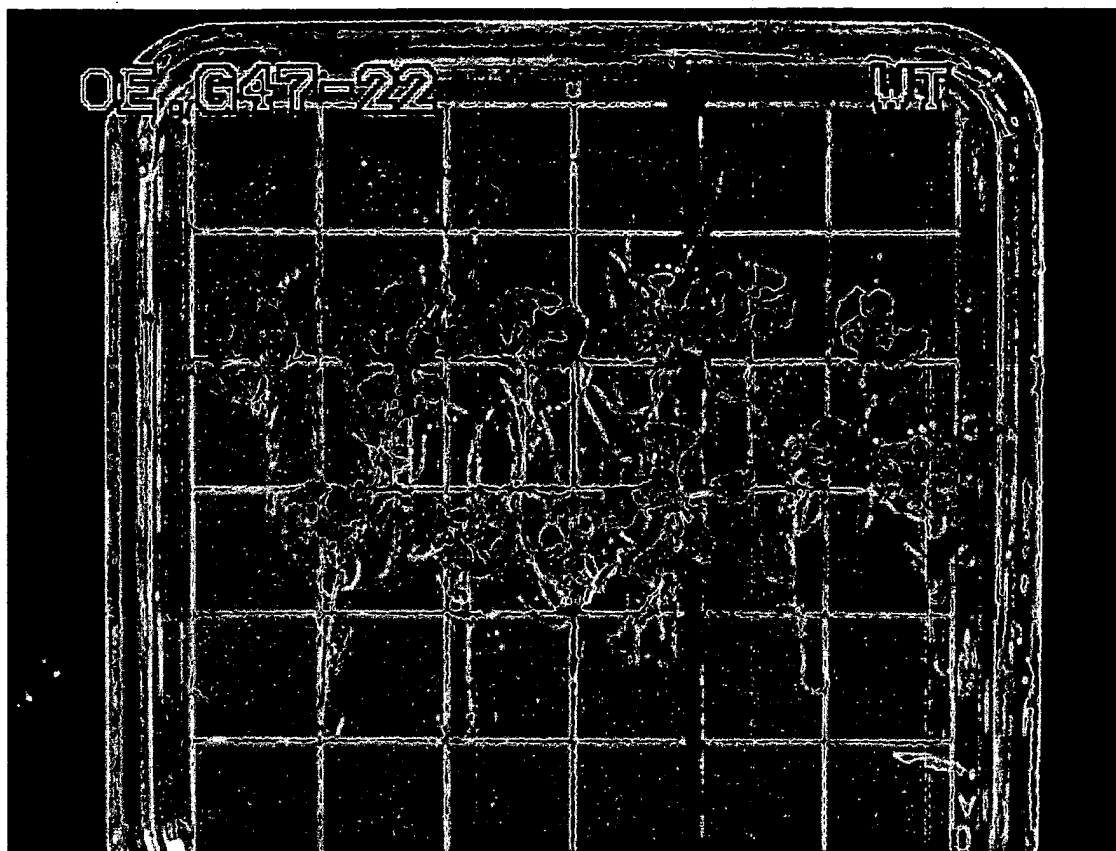


FIGURE 6A



FIGURE 6B



FIGURE 7A

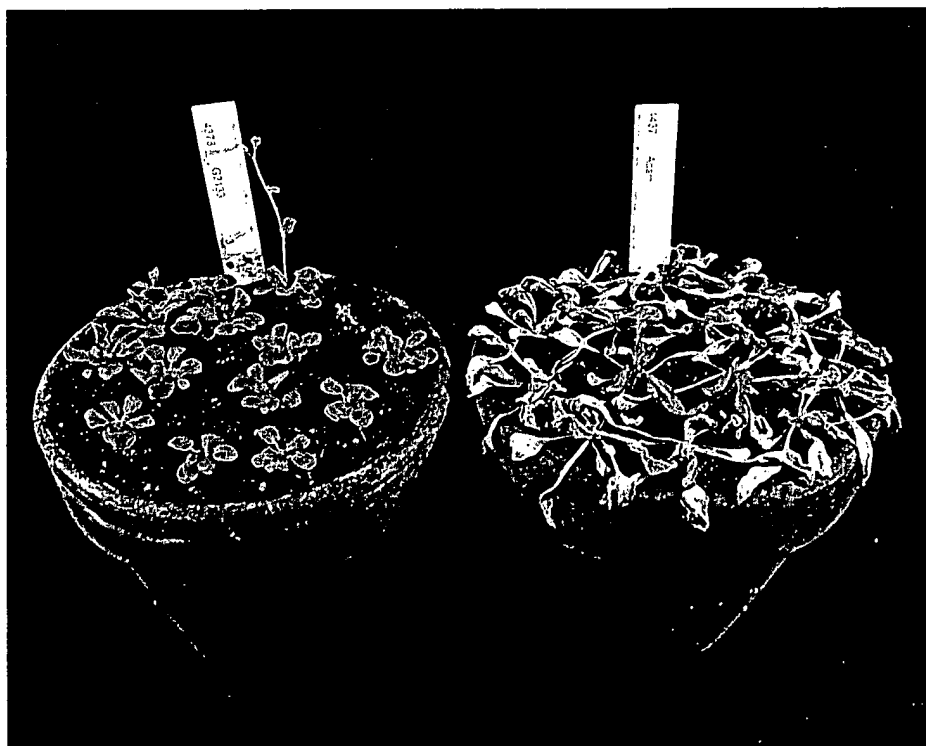


FIGURE 7B

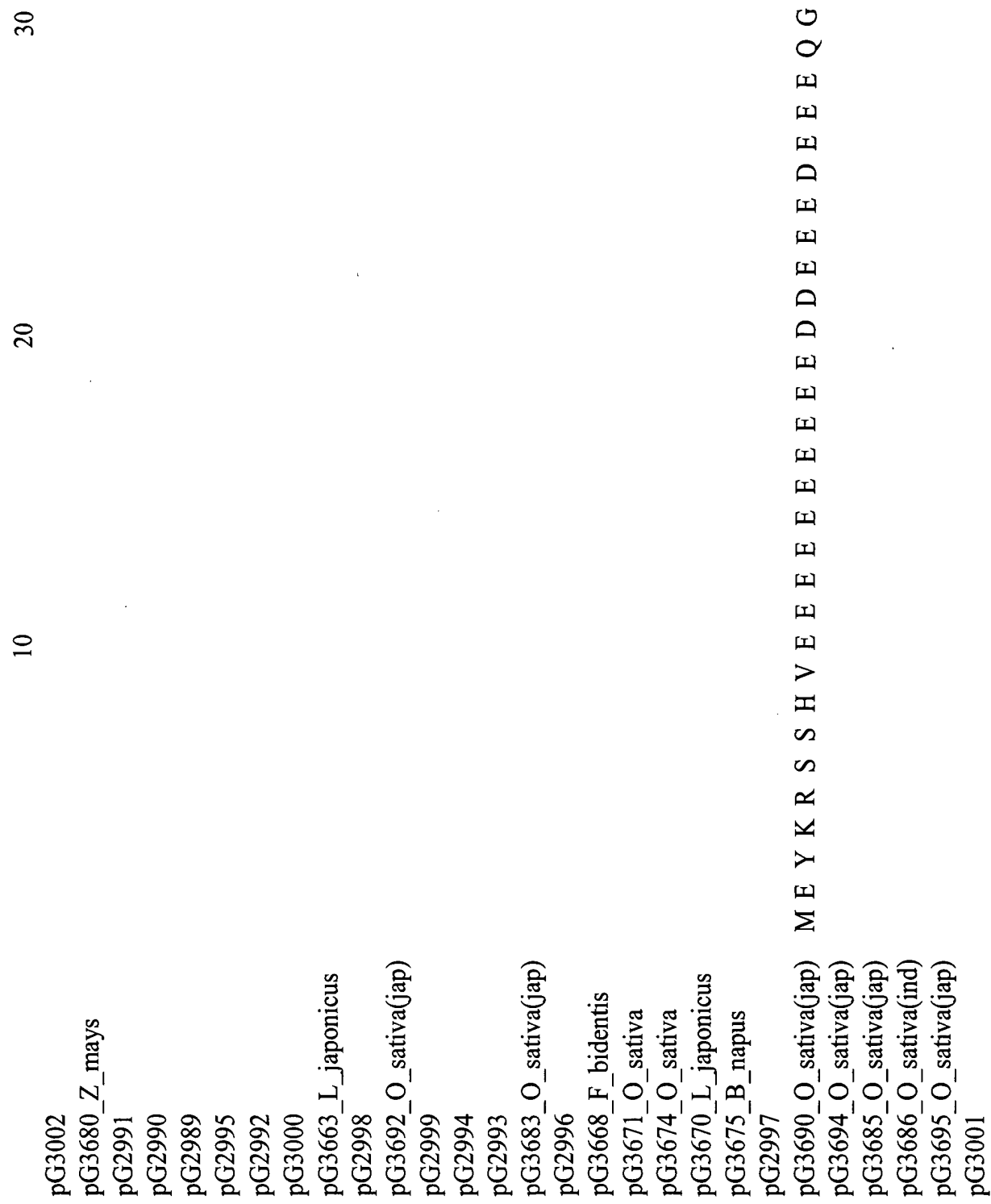


FIGURE 8A

	40	50	60
pG3002			
pG3680_Z_mays			
pG2991			
pG2990			
pG2989			
pG2995			
pG2992			
pG3000			
pG3663_L_japonicus			
pG2998			
pG3692_O_sativa(jap)			
pG2999			
pG2994			
pG2993			
pG3683_O_sativa(jap)			
pG2996			
pG3668_F_bidentis			
pG3671_O_sativa			
pG3674_O_sativa			
pG3670_L_japonicus			
pG3675_B_napus			
pG2997			
pG3690_O_sativa(jap)	H H Q Y T T A A Q Q Q L H P Q V L G S S A S S P S S L M D		
pG3694_O_sativa(jap)			
pG3685_O_sativa(jap)			
pG3686_O_sativa(ind)			
pG3695_O_sativa(jap)			
pG3001			

FIGURE 8B

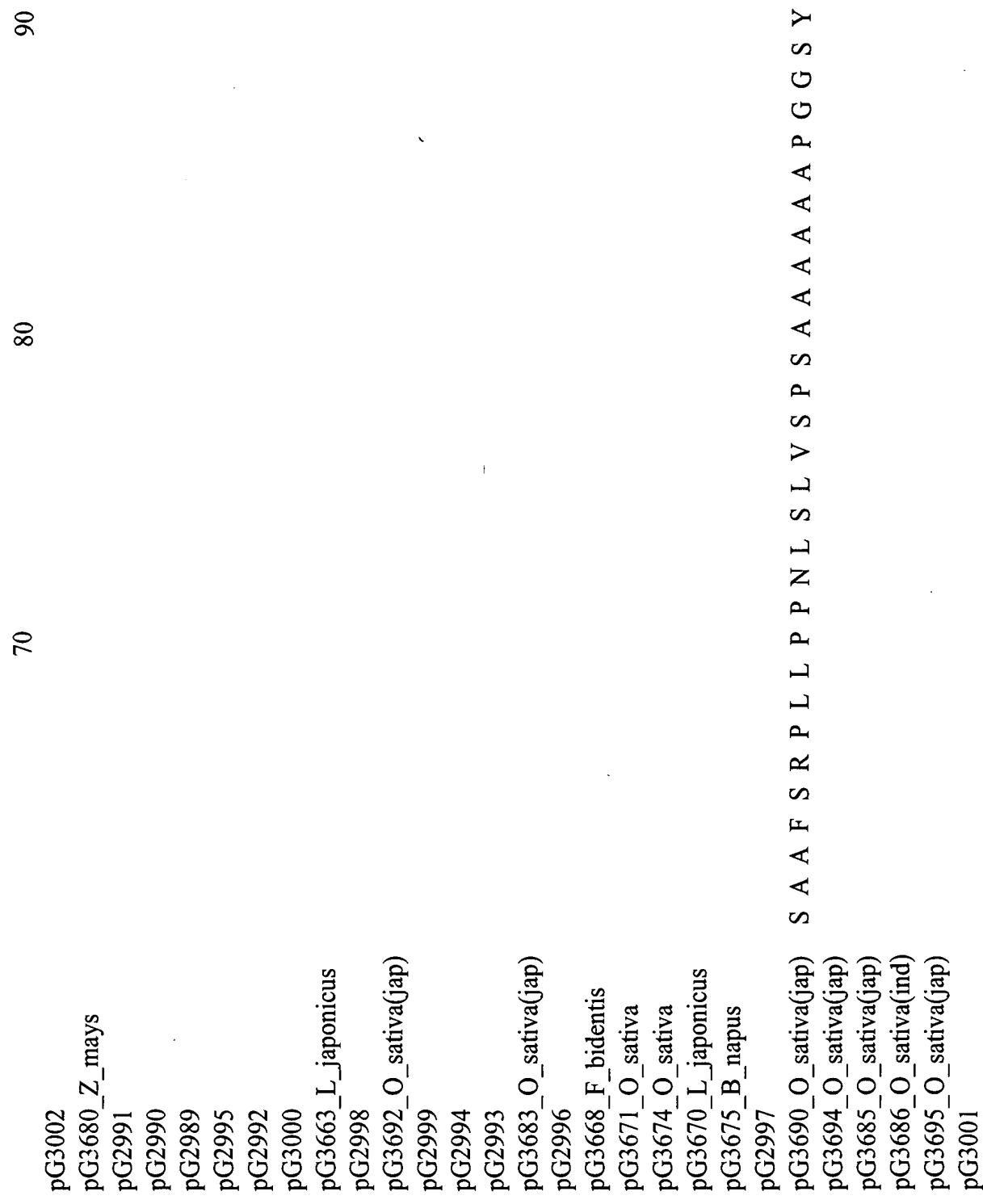


FIGURE 8C

	100	110	120
pG3002			
pG3680_Z_mays			
pG2991			
pG2990			
pG2989			
pG2995			
pG2992			
pG3000			
pG3663_L_japonicus			
pG2998			
pG3692_O_sativa(jap)			
pG2999			
pG2994			
pG2993			
pG3683_O_sativa(jap)			
pG2996			
pG3668_F_bidentis			
pG3671_O_sativa			
pG3674_O_sativa			
pG3670_L_japonicus			
pG3675_B_napus			
pG2997			
pG3690_O_sativa(jap)	L H A A H H G Q G R R V E A P G G E S Q H H L Q R H H - -		
pG3694_O_sativa(jap)			
pG3685_O_sativa(jap)			
pG3686_O_sativa(ind)			
pG3695_O_sativa(jap)			
pG3001			

	M D M R S - - - H E M I E R R R E D N G	
	M E V R E K K - - D E K M E M T R R K S S	
	M E I A S Q E D H D M P I P L N T T F G G	
	M E I A S Q E - - - D P I P I N T S Y G N	
		M D L S G A Q G E
		M E F E D N N N N
		M E F D E H D - -
		M D F D D H D - -
		M D F D D H D E G
		M E F D E Q E - -
		M D F E E Q E - -
		M N F E D Q E - -
		M E F R G H D - -
		M E L S E H E - -
		M D E I K P K

FIGURE 8D

	130	140	150
pG3002			
pG3680_Z_mays			
pG2991	MDVIA	TTTIV	SDLDSSRQPEIEA
pG2990	MMDMT	PTTTT	PTPKSPESPSET
pG2989		MLEVR	MDMTPKSPESPSET
pG2995			MSLS-KPNR--
pG2992			MDLSS-KPQQ--
pG3000	MELG	KKCAIT	TTTMI
pG3663_L_japonicus	RDS	SSSLPSS	DDQPSQTH
pG2998	- -	NNGGVVIS	NI
pG3692_O_sativa(jap)			DDN--CNGN
pG2999	- -	ALD	HHRLPPY
pG2994	- -	GSH	GHMHHH
pG2993	S -	GGH	GNMHHH
pG3683_O_sativa(jap)	LPL	PMHAA	ASP
pG2996	NDE	EEED	MNLHEE
pG3668_F_bidentis	- -	EQEE	EVGI
pG3671_O_sativa	- -	DGDE	EMPP
pG3674_O_sativa	- -	DGDE	EMPP
pG3670_L_japonicus	- -	EQDE	EMGI
pG3675_B_napus	- -	EEME	SGAN
pG2997	- -	EDME	SGVNP
pG3690_O_sativa(jap)	- -	EPAR	NGVL
pG3694_O_sativa(jap)	- -	EPV	DEMG
pG3685_O_sativa(jap)	- -	EPV	DEMG
pG3686_O_sativa(ind)	- -	EDAG	DVGG
pG3695_O_sativa(jap)	- -	EDAG	DVGG
pG3001	KEEN	SKRR	RNVK
			PI
			CRET
			G
			GDH
			V
			HY
			L
			P
			T
			CK
			T

FIGURE 8E

	160	170	180
pG3002			
pG3680_Z_mays			
pG2991	P I R I - - - - -	M E A M D V K Y K P V M F P N G A G L K K	
pG2990	P T R I - - - - -	Q P A K P I S F S N G K R C H H	
pG2989	P T R I - - - - -	Q P A K P I S F S N G I I K R R H	
pG2995	- - - - -	Q P A K P I S F S N G I I K R R H	
pG2992	- - - - -	Q F L S P T T N N Q D T - G R E	
pG3000	E A K P - - - - -	Q L L N S L P I A G - - - - -	
pG3663_L_japonicus	H N H H H I Y T P S S T S P P L P P N S V Q L Q Q P T R	E S D P S M A L F P I K - - - K	
pG2998	N T R V - - - - -	S Q T L D H H Q S K S P S S F S	
pG3692_O_sativa(jap)			M
pG2999	D P D P - - - - -	L D T N P I S I S H A P R S Y A	
pG2994	T T Q P P M P L H G N G H G N N Y D H H Q D P H H V G		
pG2993	T S N P L L V S S N S N G L G K N H D H S H H H V G Y N I		
pG3683_O_sativa(jap)	G G M N G - - - - -	R H M S P P T P P A A A E E S K A V V V	
pG2996	L P K A S - - - - -	T E S H E T T G T T S T G G G G F M V	
pG3668_F_bidentis	R K S G - - - - -	- - - - - G G - - - -	
pG3671_O_sativa	A G G G - - - - -	M A P K P P G E I G S R V K G P - - -	
pG3674_O_sativa	G G G G - - - - -	G V P K P G G V G G G G G - - -	
pG3670_L_japonicus	R S K I - - - - -	A E V S A P V I G R K G G S F T - - -	
pG3675_B_napus	T S - - - - -	S G - - - G G G G G S R - - -	
pG2997	T S - - - - -	S G - - - G G V G R S - - -	
pG3690_O_sativa(jap)	L A L V - - - - -	G G G G G P R G G E G - - -	
pG3694_O_sativa(jap)			
pG3685_O_sativa(jap)	- - - - -	S S S P A A S A S A G - - - -	
pG3686_O_sativa(ind)	- - - - -	- - - - - T P P H R V L T S - - -	
pG3695_O_sativa(jap)		M M D H L S L V P Y E G G S - - -	
pG3001	K P - - - - -	- - - K P T R T H H A P P P I L D S I	

FIGURE 8F

	190	200	210
pG3002	MQST	YRECM	YRECM
pG3680_Z_mays	AAV	YRECL	YRECL
pG2991	SEAV	YKECL	YKECL
pG2990	HHHP	YKECL	YKECL
pG2989	HHHN	YKECL	YKECL
pG2995	TIACARD	YKECL	YKECL
pG2992	ELTVTGE	YKECL	YKECL
pG3000	ENQKPKTR	YKECL	YKECL
pG3663_L_japonicus	DDPSS	YKECL	YKECL
pG2998	ISAAAKP	YKECL	YKECL
pG3692_O_sativa(jap)	EQQERPR	YKECL	YKECL
pG2999	RPQTSPG	YKECL	YKECL
pG2994	YNAIKKKP	YKECL	YKECL
pG2993	MVTNKKKP	YKECL	YKECL
pG3683_O_sativa(jap)	VSSATTA	YKECL	YKECL
pG2996	VHGGGSR	YKECL	YKECL
pG3668_F_bidentis	GGGG	YKECL	YKECL
pG3671_O_sativa	SCGGG	YKECL	YKECL
pG3674_O_sativa	GGGGG	YKECL	YKECL
pG3670_L_japonicus	PPVAGV	YKECL	YKECL
pG3675_B_napus	KTVGGSK	YKECL	YKECL
pG2997	KGVGAK	YKECL	YKECL
pG3690_O_sativa(jap)	AAGEAPT	YKECL	YKECL
pG3694_O_sativa(jap)	NGAGAAE	YKECL	YKECL
pG3685_O_sativa(jap)	AAPEAIR	YKECL	YKECL
pG3686_O_sativa(ind)	AGGGGGG	YKECL	YKECL
pG3695_O_sativa(jap)	FKVTHKP	YKECL	YKECL
pG3001		YKECL	YKECL

FIGURE 8G

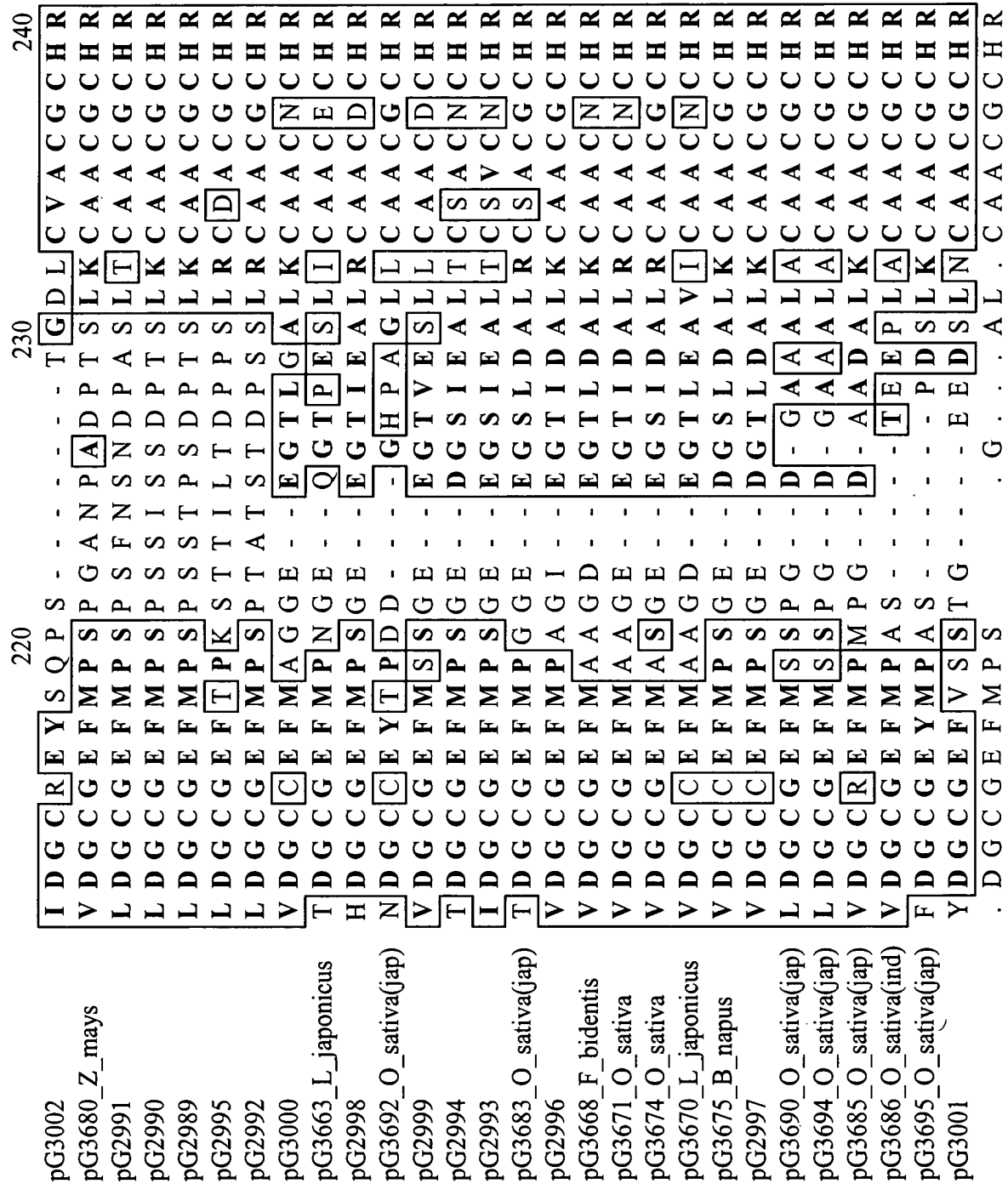


FIGURE 8H

[illegible]

FIGURE 8I

	280	290	300
pG3002	- - - - -	- - - - -	- - - - -
pG3680_Z_mays	Q P H R A R E E T P E D R H P G V V D A D D S D S E G S		
pG2991	- - - - A I E F - - - - -	- - - - -	- - - - R
pG2990	- - - - T A V E Y - - - - -	- - - - -	- - - - Q
pG2989	S T T T A A I E Y - - - - -	- - - - -	- - - - Q
pG2995	- - - - -	- - - - -	- - - - -
pG2992	- - - - P S G T E - - - - -	- - - - -	- - - - S
pG3000	- - - - -	- - - - -	- - - - Q
pG3663_L_japonicus	- - - - -	- - - - -	- - - - V
pG2998	G G G G R R P P - - - - -	- - - - -	- - - - P
pG3692_O_sativa(jap)	- - - - -	- - - - -	- - - - -
pG2999	- - - - -	- - - - -	- - - - -
pG2994	- - - - -	- - - - -	- - - - -
pG2993	- - - - -	- - - - -	- - - - -
pG3683_O_sativa(jap)	- - - - - L - - - - -	- - - - -	- - - - H
pG2996	- - - - -	- - - - -	- - - - -
pG3668_F_bidentis	Q A A L Q H - - - - -	- - - - -	- - - - -
pG3671_O_sativa	Y G A T P H H Q F - - - - -	- - - - -	- - - - S
pG3674_O_sativa	Y G A S P H H Q F - - - - -	- - - - -	- - - - S
pG3670_L_japonicus	H H H Q Y H S Q F - - - - -	- - - - -	- - - - S
pG3675_B_napus	- - - - - V - - - - -	- - - - -	- - - - P
pG2997	- - - - - V - - - - -	- - - - -	- - - - P
pG3690_O_sativa(jap)	A A G L V S L S P - - - - -	- - - - -	- - - - S
pG3694_O_sativa(jap)	A A G L V S L S P - - - - -	- - - - -	- - - - S
pG3685_O_sativa(jap)	Q Q Q L R L L I P - - - - -	- - - - -	- - - - S
pG3686_O_sativa(ind)	A R L L Q L H L P - - - - -	- - - - -	- - - - A
pG3695_O_sativa(jap)	- - - - -	- - - - -	- - - - Q
pG3001	- - - - -	- - - - -	- - - - -

FIGURE 8J

	310	320	330
pG3002	- - - - -	- - - - -	- - - - -
pG3680_Z_mays	EYDEER	SLPVP	TRFPF
pG2991	PHNRHQ	LPAPV	QAQPP
pG2990	PHHRHH	PPPP	DDDD
pG2989	PHHRHH	PPPP	SSASPP
pG2995	PHHRHH	PPPP	SSASPP
pG2992	PHHRHH	PPPP	SSASPP
pG3000	PHHRHH	PPPP	SSASPP
pG3663_L_japonicus	PHHRHH	PPPP	SSASPP
pG2998	PHHRHH	PPPP	SSASPP
pG3692_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG2999	PHHRHH	PPPP	SSASPP
pG2994	PHHRHH	PPPP	SSASPP
pG2993	PHHRHH	PPPP	SSASPP
pG3683_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG2996	PHHRHH	PPPP	SSASPP
pG3668_F_bidentis	PHHRHH	PPPP	SSASPP
pG3671_O_sativa	PHHRHH	PPPP	SSASPP
pG3674_O_sativa	PHHRHH	PPPP	SSASPP
pG3670_L_japonicus	PHHRHH	PPPP	SSASPP
pG3675_B_napus	PHHRHH	PPPP	SSASPP
pG2997	PHHRHH	PPPP	SSASPP
pG3690_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG3694_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG3685_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG3686_O_sativa(ind)	PHHRHH	PPPP	SSASPP
pG3695_O_sativa(jap)	PHHRHH	PPPP	SSASPP
pG3001	PHHRHH	PPPP	SSASPP

FIGURE 8K

pG3002	V K Q L A R L K W K T A E E R N - - - - - E E E D D T E	340	350	360
pG3680_Z_mays	Y F P T A P H M V L S L G S G V P G P A V A V S P A Q R L A			
pG2991	P I S S S Y M L L A L S G - - - - - G R G - - - -			
pG2990	P I S S S Y M L L S L S G T N N N N N L A S F S D L N F S			
pG2989	P I S S S Y M L L A L S G - - - N N K T A P F S D L N F A			
pG2995	S L S S G F F G P S D Q E - - - - - V K - - N K F			
pG2992	S L S S G F P G P S D Q - - - - - - - - - D P T			
pG3000	R T S S S S E D M K K I L S H R - - - - - N Q N V D G K			
pG3663_L_japonicus	- - - L M M G F G G G S G G P - - - A A E S S S E D L N			
pG2998	G G M V T P M S V A Y G G G G - - - G A E S S S E D L N			
pG3692_O_sativa(jap)	Y M H M A A M G G A V G G G G - - - - - V D G G G			
pG2999	S R H V S P I M M S F G G G G C - - - A A E S S T E D L N			
pG2994	H Q M I M P I G V S N Y R Y M H N - - - N S E S E D F M E E			
pG2993	Q Q M I M P I G V T T A G - - S - - - N S E S E D L M E E			
pG3683_O_sativa(jap)	- - - P T R M V M P L S A M H T S - - - - - E S D D A A			
pG2996	- - - L Q L A L P P P Q R E R - - - - - S E D P M E T			
pG3668_F_bidentis	- - - Q R Q L A L P S T S R - - - - - D D L D E I S N			
pG3671_O_sativa	- Y P Q R P L A L P S T S H S G R D - - D G D D L S G M V G			
pG3674_O_sativa	G Y P Q R P L A L P S T S H S G R D - - E G D D M S G M V G			
pG3670_L_japonicus	- - - - P L A L P P A T S G G G - - - F S R E E E D M S N			
pG3675_B_napus	- - - - P Y K P P A A S G D - - - - - E E D T S N			
pG2997	- - - - Y R P P A A S G D - - - - - E E D T S N			
pG3690_O_sativa(jap)	S P A S A P A A L A E S S S E E L R P P P L P S S H P H A H			
pG3694_O_sativa(jap)	S P A S A P A A L A E S S S E E L R P P P L P S S H P H A H			
pG3685_O_sativa(jap)	P Y H H T P S G S G G T T T E - - - - - S S S E E R G P			
pG3686_O_sativa(ind)	P G Y G T P S G G T G T T T A - - - - - S S S D E R L R			
pG3695_O_sativa(jap)	A V P A A A W H H A A A A A G R A G S E T P P R M D D F G			
pG3001	E G K K K K E K E S Y G G D - - - - - P I K D R F G			

FIGURE 8L

	370		380		390
pG3002	E T S T E E K M T - - - - - - - - - - - - - - - - V Q R R R R K S				
pG3680_Z_mays	P T Q L T P S S A P P - - - - H A G G A M P M P R K R F R T				
pG2991	- G A N T A V P M S - - - - - - - - - - - - - - - - R K R F R T				
pG2990	A G N N H H H Q H - - - - - - - - - - - - - - - - R K R F R T				
pG2989	A A A N H L S A T P - - - - - - - - - - - - - - - - R K R F R T				
pG2995	T V E R D V R K T A - - - - - - - - - - - - - - - - I K K H K R T				
pG2992	V V R S E N S S R G - - - - - - - - - - - - - - - - A M R K R T R T				
pG3000	S L M M M M R K - - - - - - - - - - - - - - - - - K K R V R T				
pG3663_L_japonicus	M F H Q S N D G G Q - - - - L S V Q P P L S S K K R F R T				
pG2998	L Y G Q S S G E G A G A A G Q M A F S M S S K K R F R T				
pG3692_O_sativa(jap)	S G - G R R R T R T				
pG2999	K F H Q S F S - - - - G Y G V D Q F H H Y Q P K K R F R T				
pG2994	D G V T T A S R S L P N L P - - - - - - - - - - - - Y N Q K K R F R T				
pG2993	E G G S L T F R Q P P P P S P Y S Y G H N Q K K R F R T				
pG3683_O_sativa(jap)	A R - A R K R F R T				
pG2996	S S - A E A G G I R K R H R T				
pG3668_F_bidentis	P S - - - - - - S S - - - - G - G G V G G S G S - K K R F R T				
pG3671_O_sativa	P M S A V G P L S G M S L G A G - P S G S G S G S G K K R F R T				
pG3674_O_sativa	P M - V I G P M V G M S L G S A G P S G S G S G S G K K R F R T				
pG3670_L_japonicus	P S - - - - - - S S - - - - - - - - - - - - - - - - K K R Y R T				
pG3675_B_napus	P S - - - - - - S S - - - - - - - - - - - - - - - - A K R F R T				
pG2997	P S - - - - - - S S - - - - - - - - - - - - - - - - T K R F R T				
pG3690_O_sativa(jap)	A A A V V A A S A - - - - - - - - - - - - - - - - S K K R F R T				
pG3694_O_sativa(jap)	A A A V V A A S A - - - - - - - - - - - - - - - - S A P P G P S K K R F R T				
pG3685_O_sativa(jap)	P S S S A A A - - - - - - - - - - - - - - - - - - A Q G R R K R F R T				
pG3686_O_sativa(ind)	P S P - V Q P R R R S R T				
pG3695_O_sativa(jap)	P G S A G S G S - - - - - - - - - - - - - - - - - G G G I F G R K R F R T				
pG3001	G A E E E - V K R L K T				
					. K R F R T

	400	410	420
pG3002	K F T A E Q R E A M K D Y A K L G W T L K D K R	- - - - -	- - - - -
pG3680_Z_mays	K F T A E Q K Q R M Q E L S E R L G W R L Q K R D	- - - - -	- - - - -
pG2991	K F S Q Y Q K E K M F E F S E R V G W R M P K A D	- - - - -	- - - - -
pG2990	K F S Q F Q K E K M H E F A E R V G W K M Q K R D	- - - - -	- - - - -
pG2989	K F S S N Q K E K M H E F A D R I G W K I Q K R D	- - - - -	- - - - -
pG2995	K F T A E Q K V K M R G F A E R A G W K I N G W D	- - - - -	- - - - -
pG2992	K F T P E Q K I K M R A F A E K A G W K I N G C D	- - - - -	- - - - -
pG3000	K I N E E Q K E K M K E F A E R L G W R M Q K K D	- - - - -	- - - - -
pG3663_L_japonicus	K F T Q Q Q K D R M M E F A E K L G W K I Q K Q D	- - - - -	- - - - -
pG2998	K F T T D Q K E R M M D F A E K L G W R M N K Q D	- - - - -	- - - - -
pG3692_O_sativa(jap)	K F T E E Q K A R M L R F A E R L G W R M P K R E	- - - - -	P G R A P
pG2999	K F N E E Q K E K M M E F A E K I G W R M T K L E	- - - - -	- - - - -
pG2994	K F T P E Q K E K M L S F A E K V G W K I Q R Q E	- - - - -	- - - - -
pG2993	K F T Q E Q K E K M I S F A E R V G W K I Q R Q E	- - - - -	- - - - -
pG3683_O_sativa(jap)	K F T A E Q K A R M L G F A E E V G W R L Q K L E	- - - - -	- - - - -
pG2996	K F T A E Q K E R M L A L A E R I G W R I Q R Q D	- - - - -	- - - - -
pG3668_F_bidentis	K F T Q D Q K D R M L A F S E A L G W R I Q K H D	- - - - -	- - - - -
pG3671_O_sativa	K F T Q E Q K D K M L A F A E R V G W R I Q K H D	- - - - -	- - - - -
pG3674_O_sativa	K F T Q E Q K D K M L A F A E R L G W R I Q K H D	- - - - -	- - - - -
pG3670_L_japonicus	K F T P E Q K E K M L A F A E E L G W R I Q K H Q	- - - - -	- - - - -
pG3675_B_napus	K F T A E Q K D K M L A F A E R L G W R I Q K H D	- - - - -	- - - - -
pG2997	K F T A E Q K E K M L A F A E R L G W R I Q K H D	- - - - -	- - - - -
pG3690_O_sativa(jap)	K F T A E Q K E R M R E F A H R V G W R I H K P D	- - - - -	- - - - -
pG3694_O_sativa(jap)	K F T A E Q K E R M R E F A H R V G W R I H K P D	- - - - -	- - - - -
pG3685_O_sativa(jap)	K F T P E Q K E Q M L A F A E R V G W R M Q K Q D	- - - - -	- - - - -
pG3686_O_sativa(ind)	T F T R E Q K E Q M L A F A E R V G W R I Q R Q E	- - - - -	- - - - -
pG3695_O_sativa(jap)	K F T P A E Q K E R M R E F A E K Q G W R I N R D	- - - - -	- - - - -
pG3001	K F T A E Q T E K M R D Y A E K L R W K V R P E R	- - - - -	- - - - -
	K F T E Q K E K M F A E R . G W R I Q K D	- - - - -	- - - - -

FIGURE 8N

pG3002	L	R	E	E	I	R	V	F	C	E	G	I	G	V	T	R	Y	H	F	K	T	W	V	N	N	N	K	K	F	Y
pG3680_Z_mays	-	E	A	I	V	D	E	W	C	R	D	I	G	V	G	K	G	V	F	K	V	W	M	H	N	N	K	H	N	F
pG2991	-	D	V	V	F	E	F	F	C	R	E	I	G	V	D	K	S	V	F	K	V	W	M	H	N	N	K	I	S	G
pG2990	-	E	D	D	V	R	D	F	C	R	Q	I	G	V	D	K	S	V	L	K	V	W	M	H	N	N	K	N	T	F
pG2989	-	E	D	E	V	R	D	F	C	R	E	I	G	V	D	K	S	V	L	K	V	W	M	H	N	N	K	N	S	F
pG2995	-	E	K	W	V	R	E	F	C	S	E	V	G	I	E	R	K	V	L	K	V	W	I	H	N	N	K	Y	F	N
pG2992	-	E	K	S	V	R	E	F	C	N	E	V	G	I	E	R	G	V	L	K	V	W	M	H	N	N	K	Y	S	L
pG3000	-	E	E	E	I	D	K	F	C	R	M	V	N	L	R	Q	Q	V	F	K	V	W	M	H	N	N	K	Q	A	M
pG3663_L_japonicus	-	E	E	E	V	K	Q	F	C	S	H	V	G	V	K	R	Q	A	F	K	V	W	M	H	N	S	K	Q	A	M
pG2998	-	E	E	E	L	K	R	F	C	G	E	I	G	V	K	R	Q	V	F	K	V	W	M	H	N	N	K	-	N	N
pG3692_O_sativa(jap)	G	D	D	E	V	A	R	F	C	R	E	I	G	V	N	R	Q	V	F	K	V	W	M	H	N	H	K	A	G	G
pG2999	-	D	D	E	V	N	R	F	C	R	E	I	K	V	K	R	Q	V	F	K	V	W	M	H	N	N	K	-	Q	A
pG2994	-	D	C	V	V	Q	R	F	C	E	E	I	G	V	K	R	R	V	L	K	V	W	M	H	N	N	K	I	H	F
pG2993	-	E	S	V	V	Q	Q	L	C	Q	E	I	G	I	R	R	R	V	L	K	V	W	M	H	N	N	K	Q	N	L
pG3683_O_sativa(jap)	-	D	A	V	V	Q	R	F	C	Q	E	V	G	V	K	R	R	V	L	K	V	W	M	H	N	N	K	H	T	L
pG2996	-	D	E	V	I	Q	R	F	C	Q	E	T	G	V	P	R	Q	V	L	K	V	W	L	H	N	N	K	H	T	L
pG3668_F_bidentis	-	E	A	A	V	Q	Q	F	C	N	E	T	G	V	K	R	H	V	L	K	V	W	M	H	N	N	K	H	T	I
pG3671_O_sativa	-	E	A	A	V	Q	Q	F	C	D	E	V	G	V	K	R	H	V	L	K	V	W	M	H	N	N	K	H	T	L
pG3674_O_sativa	-	E	A	A	V	Q	Q	F	C	E	E	V	C	V	K	R	H	V	L	K	V	W	M	H	N	N	K	H	T	L
pG3670_L_japonicus	-	E	A	A	V	Q	Q	F	C	A	E	T	C	V	R	R	N	V	L	K	V	W	M	H	N	N	K	H	T	L
pG3675_B_napus	-	D	A	A	V	E	Q	F	C	A	E	T	G	V	R	R	Q	V	L	K	I	W	M	H	N	N	K	N	S	L
pG2997	-	D	V	A	V	E	Q	F	C	A	E	T	G	V	R	R	Q	V	L	K	I	W	M	H	N	N	K	N	S	L
pG3690_O_sativa(jap)	-	A	A	A	V	D	A	F	C	A	Q	V	G	V	S	R	R	V	L	K	V	W	M	H	N	N	K	H	L	A
pG3694_O_sativa(jap)	-	A	A	A	V	D	A	F	C	A	Q	V	G	V	S	R	R	V	L	K	V	W	M	H	N	N	K	L	L	A
pG3685_O_sativa(jap)	-	E	A	L	V	E	Q	F	C	A	Q	V	G	V	R	R	Q	V	F	K	V	W	M	H	N	N	K	S	S	I
pG3686_O_sativa(ind)	-	E	A	T	V	E	H	F	C	A	Q	V	G	V	R	R	Q	A	L	K	V	W	M	H	N	N	K	H	S	F
pG3695_O_sativa(jap)	-	D	G	A	L	D	R	F	C	V	E	I	G	V	K	R	H	V	L	K	V	W	M	H	N	H	K	N	Q	L
pG3001	-	Q	E	E	V	E	E	F	C	V	E	I	G	V	N	R	K	N	F	R	I	W	M	N	N	H	K	D	K	I
	E	.	.	.	V	.	.	F	C	E	.	G	V	.	R	.	.	V	L	K	V	W	M	H	N	N	K	.	.	.

FIGURE 80

	460	470	480
pG3002	H		
pG3680_Z_mays	L	G H S A R R S A S S P A P A A A S L Q T P A A G A G	
pG2991	R	- - - - S G A R R A N G G - - - - V V V G G V G D	
pG2990	N	R D I A G N E I R Q I D N G G N H T P I L A G E I N N	
pG2989	K	F S G G G A T T V Q R N D N G - - - - I G G E N S N	
pG2995	-	- - - - N G R S R D T T S S - - - - M S L N L K L	
pG2992	L	- - - - N G K I R E I E H G - - - - L C L N T H S	
pG3000	K	R N N S N I S E	
pG3663_L_japonicus	K	K K Q I M	
pG2998	A	K K P P T P T T L	
pG3692_O_sativa(jap)	G	G G G G S G G P G A G G G A Q T S S S T T R G G G D V G	
pG2999	A	K K K D L	
pG2994	S	K K N N I N L E D N D N E K I N N L N N V D L S G N N D M	
pG2993	S	K K S N N V S N N V D L S A G N N D I T E N L A S T N P	
pG3683_O_sativa(jap)	A	R R H L H P S P A A A A G D D D D G A P P P H P D P R R	
pG2996	G	K S P S P L H H H Q A P P P P P Q S S F H H E Q D Q P	
pG3668_F_bidentis	G	K K P	
pG3671_O_sativa	G	K K L P	
pG3674_O_sativa	G	K K A P	
pG3670_L_japonicus	G	K K P	
pG3675_B_napus	G	R K P	
pG2997	G	K K P	
pG3690_O_sativa(jap)	K	T P P S P T S Q P P P P P L H H D P S P P P P H H H H H	
pG3694_O_sativa(jap)	K	T P P S Q T W Q P P P P P L H H D P S P P P P H H H H H	
pG3685_O_sativa(jap)	G	S S S G G S R - - - - - - - - - - - - - - - -	
pG3686_O_sativa(ind)	K	- -	
pG3695_O_sativa(jap)	A	S S P T S A A A A A G V M N P G A G I G L G T G L G T G	
pG3001	I	I D E	
	.	.	.

FIGURE 8P

	490	500	510
pG3002			
pG3680_Z_mays	A G A A A P S F N P S R I T P P P P V L T S S P T A A T G		
pG2991	S R - - - Q S V V P T N - - - - - - - - - G S F S S T		
pG2990	H N N G H H G V G G G E L H Q S V S G G G G G F D S D		
pG2989	D D - G V R G L A N D G - - - - - D G G G R F E S D		
pG2995			
pG2992	N D - - G D G S S S S		
pG3000			
pG3663_L_japonicus			
pG2998			
pG3692_O_sativa(jap)	V G L S P A M G G D G E D D E E V R G S E M C M		
pG2999			
pG2994	T K I V P		
pG2993			
pG3683_O_sativa(jap)	R E L A A A A P P A P V T Q H I K K S V D N K S L I S S		
pG2996			
pG3668_F_bidentis			
pG3671_O_sativa			
pG3674_O_sativa			
pG3670_L_japonicus			
pG3675_B_napus			
pG2997			
pG3690_O_sativa(jap)	H H H H H H P P Q H H Q Q Q Q Q Q H D A		
pG3694_O_sativa(jap)	H H H H H H P P Q H H Q Q Q Q Q Q H D A		
pG3685_O_sativa(jap)	- - - R Q P Q E Q Q S Q Q Q Q Q Q Q Q		
pG3686_O_sativa(ind)	- - - - Q K Q Q Q E N R Q E Q Q Q		
pG3695_O_sativa(jap)	I S G D G D G D D D D T D D S P P R A A V S S P S P I S		
pG3001			

FIGURE 8Q

	520	530	540
pG3002			
pG3680_Z_mays	F N I N G A A S S A P T V A T D Y T T D N A N G A S S P H S		
pG2991			
pG2990	S G G A N G G - N V N G S S S S		
pG2989	S G G A D G G N V N A S S S S		
pG2995			
pG2992			
pG3000			
pG3663_L_japonicus			
pG2998			
pG3692_O_sativa(jap)			
pG2999			
pG2994			
pG2993			
pG3683_O_sativa(jap)	L A A L H C I A L L L F H Q I D A		
pG2996			
pG3668_F_bidentis			
pG3671_O_sativa			
pG3674_O_sativa			
pG3670_L_japonicus			
pG3675_B_napus			
pG2997			
pG3690_O_sativa(jap)			
pG3694_O_sativa(jap)			
pG3685_O_sativa(jap)			
pG3686_O_sativa(ind)			
pG3695_O_sativa(jap)	V X L D S Q T H C H W H T L A		
pG3001			

FIGURE 8R

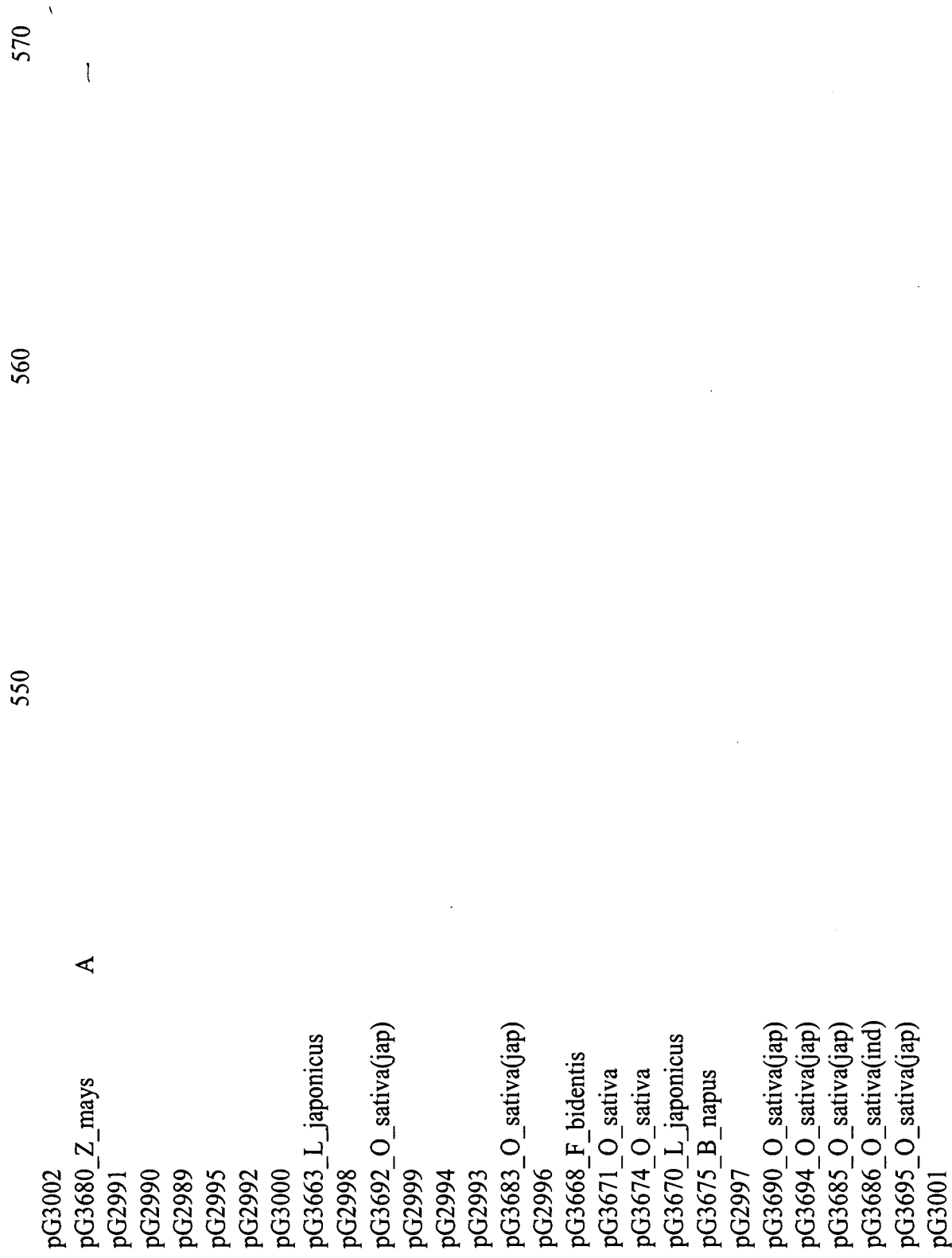


FIGURE 8S

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FIGURE 9A

70

80

90

G431-HD	K	R	H	W	K	P	S
G432-HD	K	R	H	W	K	P	S
G425-HD	K	R	N	W	N	S	N
G426-HD	K	R	N	W	H	S	N
G418-HD	V	R	L	W	K	P	M
G419-HD	V	R	L	W	K	P	M
G412-HD	A	R	W	K	N	K	R
G1545-HD	A	R	W	K	N	K	R
G399-HD	A	R	T	K	L	K	Q
G400-HD	A	R	T	K	L	K	Q
G384-HD	T	Q	M	K	A	Q	H
G388-HD	T	Q	I	K	A	I	Q
G392-HD	C	R	E	K	Q	R	K
G438-HD	C	R	D	K	Q	R	K
G1585-HD	S	R	A	K	H	K	L
G1540-HD	A	R	E	R	Q	K	K
G415-HD	W	S	I	N	S	K	P
G416-HD	Y	M	A	L	R	N	R
pG3002_HD	K	F	Y	H			
pG3001_HD	D	K	I	I	I	D	E
pG3000_HD	Q	A	M	K	R	N	N
pG2999_HD	Q	A	A	K	K	K	D
pG2998_HD	N	N	A	K	K	P	P
pG2997_HD	N	S	L	G	K	K	P
pG2996_HD	H	T	L	G	K	S	P
pG2995_HD	Y	F	N	N	G	R	S
pG2994_HD	I	H	F	S	K	K	N
pG2993_HD	Q	N	L	S	K	K	S
pG2992_HD	Y	S	L	L	N	G	K
pG2991_HD	I	S	G	R	S	G	A
pG2990_HD	N	T	F	N	R	R	D
pG2989_HD	N	S	F	K	F	S	G

FIGURE 9C

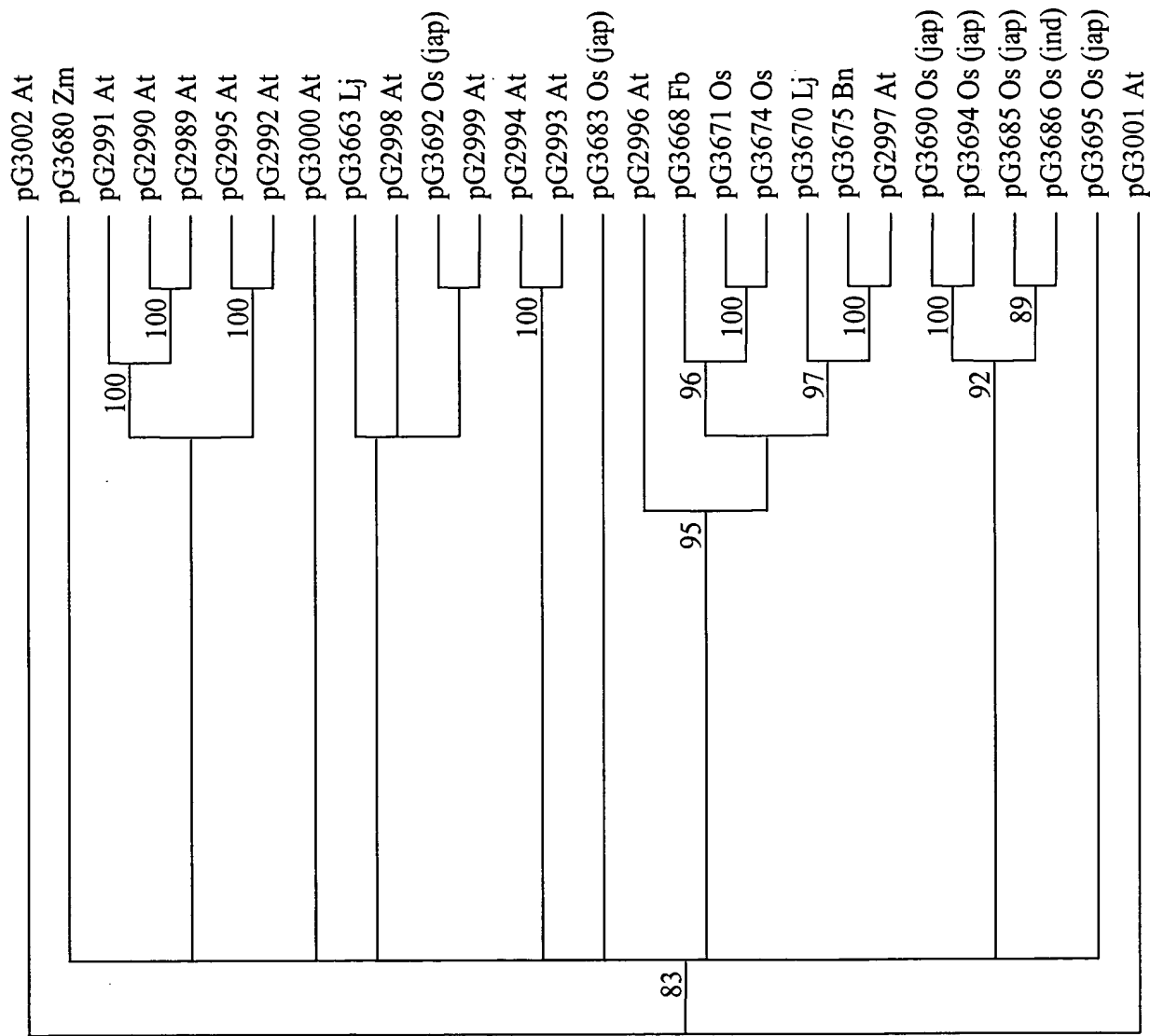
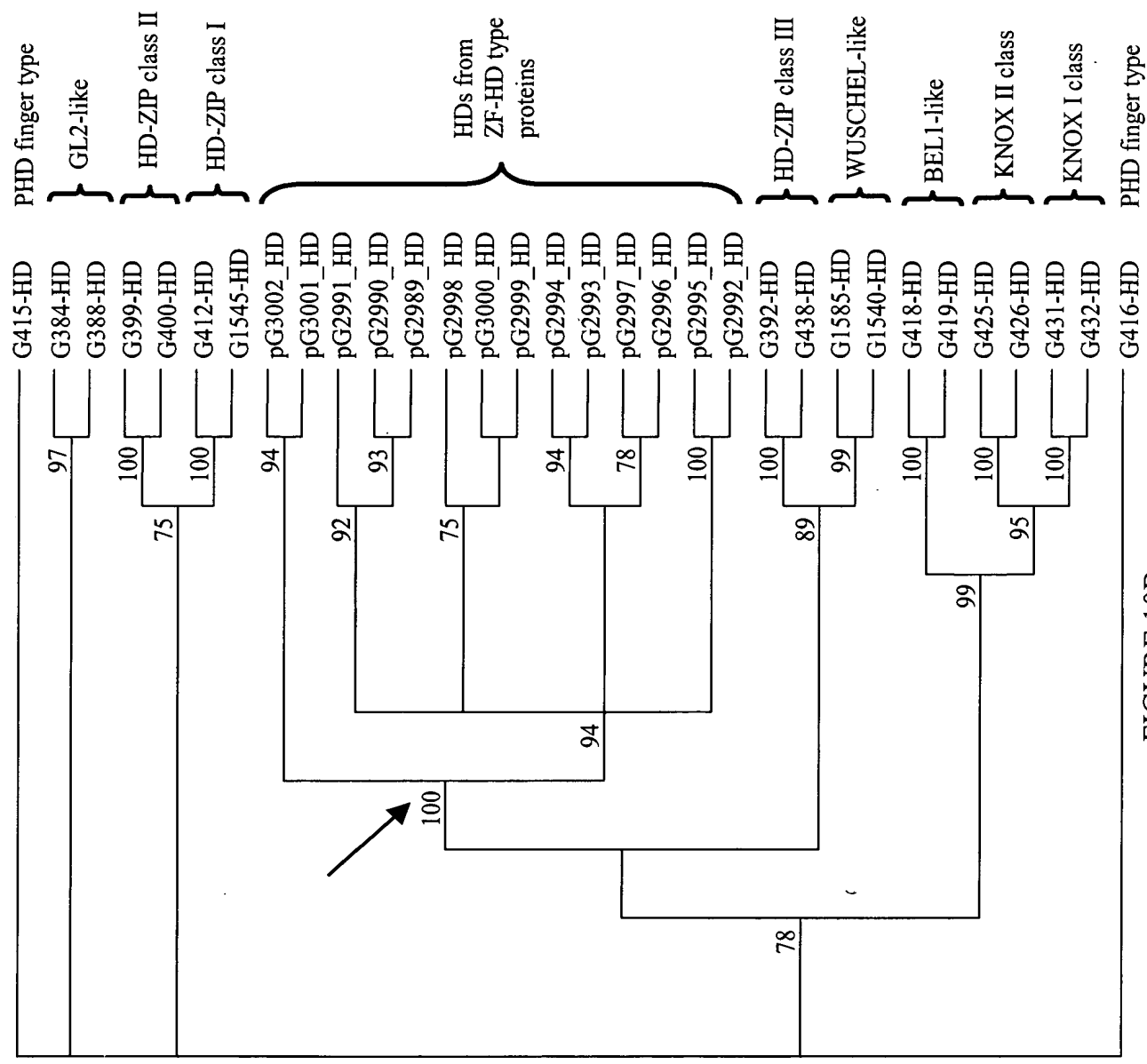


FIGURE 10A



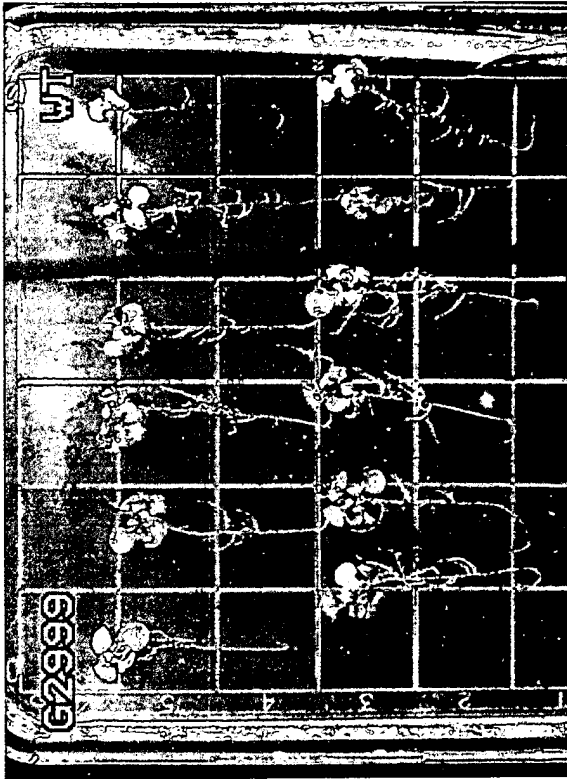


Figure 11A



Figure 11B



Figure 11C

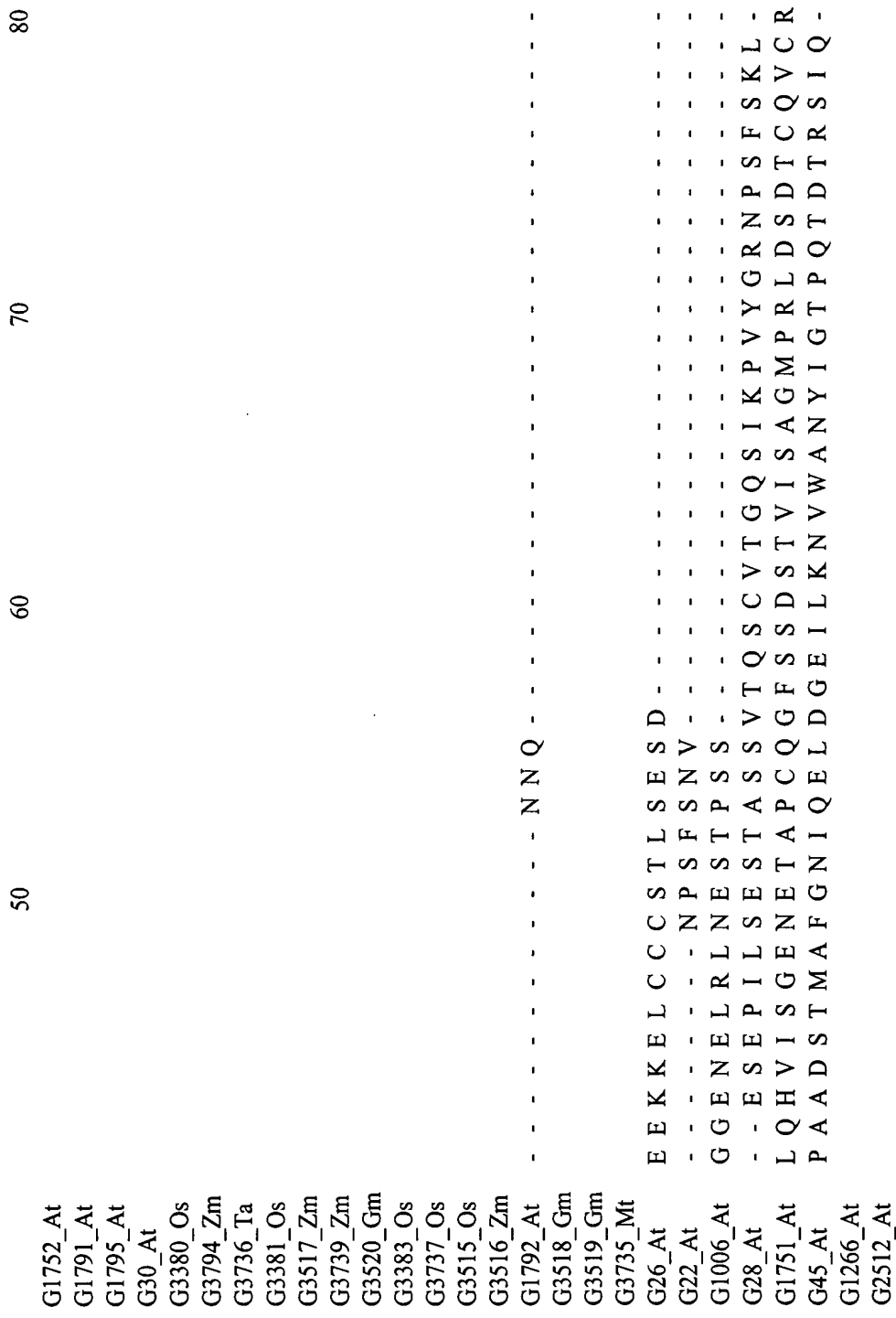


FIGURE 12B

	90	100	110	120
G1752_At		M E Y S	- - Q S S M Y S	- - S P - - - S
G1791_At		M E R I	- - - - -	- - - - -
G1795_At		M D Q G	- - - - -	- - - - -
G30_At		M D Q G	- - - - -	- - - - -
G3380_Os		M D G	- - - - -	- - - - -
G3794_Zm		M D -	- - - - -	- - - - -
G3736_Ta		M E G G	- - - - -	- - - - -
G3381_Os		M D H H	- - - - -	- - - - -
G3517_Zm		M D G	- - - - -	- - - - -
G3739_Zm		M D G	- - - - -	- - - - -
G3520_Gm		M E E E	- - - - -	- - - - -
G3383_Os		M E D	- - - - -	- - - - -
G3737_Os		M E D	- - - - -	- - - - -
G3515_Os		M E D	- - - - -	- - - - -
G3516_Zm		M E D	- - - - -	- - - - -
G1792_At	- - - - -	S Q D D	- - - - -	- - - - -
G3518_Gm		M E G	- - - - -	- - - - -
G3519_Gm		M E G	- - - - -	- - - - -
G3735_Mt		M E G	- - - - -	- - - - -
G26_At	- V S D F V S E L T G Q P I P S S I D D Q	- - - - -	- - - - -	- - - - -
G22_At	- - - I L N D N W S D L P - - L S V D D S	- - - - -	- - - - -	- - - - - Q D M A I Y
G1006_At	- - - C F T E S W G G L P - - L K E N D S	- - - - -	- - - - -	- - - - - E D M L V Y
G28_At	- Y P C F T E S W G D L P - - L K E N D S	- - - - -	- - - - -	- - - - - E D M L V Y
G1751_At	I E G C L G C N Y F F A P N - Q R I E K N H Q	- - - - -	- - - - -	- - - - - Q
G45_At	- V P E V S R T W E A L P T L D D I P E G	- - - - -	- - - - -	- - - - -
G1266_At		M D P F L I Q S P F S G	- - F S P E Y S I G S	
G2512_At		M E Y - - - Q T N F L S G E F S P E N S S S		
		M		

FIGURE 12C

	130	140	150	160
G1752_At	S W S S S Q E S L L W N E S C - F L D Q S S E P Q A F F C - - P N Y D Y S D D F			
G1791_At	E S - - - - Y N T N E M -			
G1795_At	G R - - - - G V G A E H G -			
G30_At	G R S S G S - G G G G A E Q G -			
G3380_Os	D G G G G W D D Q G N G G G -			
G3794_Zm	D G G -			
G3736_Ta	E G S - - - - - G G G G -			
G3381_Os	H Q Q Q - - - - - Q Q E G -			
G3517_Zm	E W S K - - D - - G G G G -			
G3739_Zm	D W S K - - D - - G G G G -			
G3520_Gm	S K E K - - - - - K K D T -			
G3383_Os	N R S - - - - - - K D T -			
G3737_Os	D K - - - - - - K E A -			
G3515_Os	D K S - - - - - - K E G -			
G3516_Zm	D K - - - - - - K E G -			
G1792_At	- -			
G3518_Gm	G R S S V S - - - - - N G N -			
G3519_Gm	G R S S V S - - - - - N G N -			
G3735_Mt	D H K L V S N S - - T N G N G -			
G26_At	S S S - - - - L T L Q E K S -			
G22_At	N T L R D A V S S G W T P S V P - - - - P V T - - - - S P A E E N K P P A T K A			
G1006_At	G L L K D A F H - - F D T S S S - - - - D L S C L F D F P A V K V E P T E N F T			
G28_At	G I L N D A F H G G W E P S S S S D E D R S - - - - S F P S V K I E T P E S F A			
G1751_At	E E E I T S S S N R R R E S S P -			
G45_At	S R E M L Q S L D M S T E D Q E W T E I L D A I A S F P N - - K T N H D P L T N			
G1266_At	S P D S F S S S S S N N Y S L P F N E N D S E - E M F L Y G L I E Q S T Q Q T Y			
G2512_At	S W S S - Q E S F L W E E S - - F L H Q S F D - Q S F L L S S P T D N Y C D D F			

FIGURE 12D

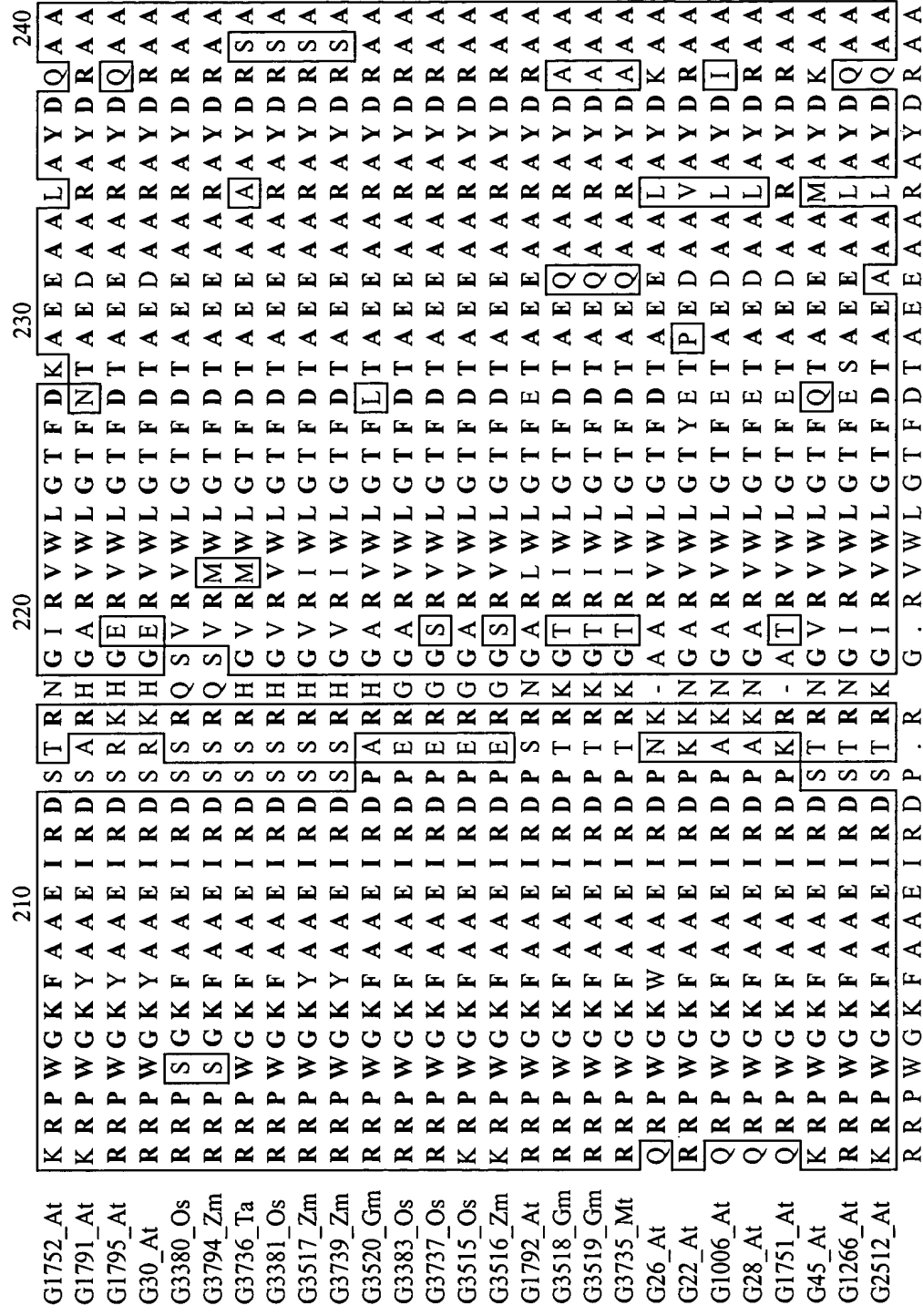


FIGURE 12F

	250	260	270	280
G1752_At	FATKGG	VE	VVRESLKKMENVN	LHDGGSPVMAL
G1791_At	FGMRG	HE	YQMMKD	- - - - G - - -
G1795_At	YSMRG	HE	YNMGSG	- - - - V - - -
G30_At	YSMRG	HE	YNMG	- - - - - - - -
G3380_Os	YAMRG	AE	- - - - - - - -	- - - - A - - -
G3794_Zm	YAMRG	AE	- - - - - - - -	- - - - A - - -
G3736-Ta	YSMRG	DR	- - - - - - - -	- - - - A - - -
G3381_Os	YSMRG	AD	- - - - - - - -	- - - - A - - -
G3517_Zm	NSMRG	ED	- - - - - - - -	- - - - A - - -
G3739_Zm	YSMRG	ED	- - - - - - - -	- - - - A - - -
G3520_Gm	YEMRG	NE	- - - - - - - -	- - - - Y - - -
G3383_Os	YAQRG	- - - -	- - - - - - - -	- - - - A - - -
G3737_Os	FAMKG	- - - -	- - - - - - - -	- - - - - - - -
G3515_Os	FAMKG	- - - -	- - - - - - - -	- - - - G - - -
G3516_Zm	FAMKG	AS	- - - - - - - -	- - - - G - - -
G1792_At	FNLRG	NE	YYP - - - -	- - - - - - - -
G3518_Gm	FHFRG	NE	YQSHNP	- - - - N - - -
G3519_Gm	FHFRG	NE	YQSHNP	- - - - N - - -
G3735_Mt	FHFRG	NE	YQAPNS	- - - - S - - -
G26_At	FEFRG	EH	IRVNPT	- - - - - - - -
G22_At	FQLRG	HL	IGSC	- - - - - - - -
G1006_At	FRMRG	LR	VNSG	- - - - - - - -
G28_At	FRMRG	LR	VNSG	- - - - - - - -
G1751_At	IGFRG	FF	VDYTS	- - - - - - - -
G45_At	VRIRG	QL	TVIKAMEM	- - - - DCN - - -
G1266_At	FSMRG	AE	RVQESLSEIK	- YTYEDGCSPPVVAL
G2512_At	FALKG	AD	VVEESLRK	MENVNLDGESPVI
	F	MRG		AL
		A . L N F P		

FIGURE 12G

G1752_At	K R K H S L R N R P R	- - - -	- - - -	G K K R	S S S S	S - - -	S S S	- S S S	- S S S	S S S C S S S	320
G1791_At	P N - - - G S H E	- - - -	- - - -	N A V A	S S S S	S G - - -	- - -	- - -	- Y R G G G D		
G1795_At	S S S T A M A	- - - -	- - - -	A S A S	A S S S	- - -	- - -	- - -	- - -	- - -	
G30_At	- - - - - G S S S	- - - -	- - - -	T A A N	S S S S	- - -	- - -	- - -	- - -	- - -	
G3380_Os	R N Y V R G S	- - - -	- - - -	G S - -	- S S S	S - - -	- - -	- R Q -	- - -	- H Q	
G3794_Zm	R N Y V R G -	- - - -	- - - -	G S - -	- S S S	S - - -	- - -	- R Q -	- - -	- Q Q	
G3736_Ta	H V Y E A E A	- - - -	- - - -	G Q - G	S S S S	A - - -	- - -	- R Q Q	- - -	- Q Q Q	
G3381_Os	H I Y A R Q L H N	- - - -	- - - -	N A A A	G S S S	S - - -	- - -	- S S -	- - -	- A A	
G3517_Zm	P A Y A A A A	- - - -	- - - -	G S - A G	G S S S	S - - -	- - -	- R P -	- - -	- - -	
G3739_Zm	H A Y A A A C	- - - -	- - - -	G S G S	S S S S	S - - -	- - -	- R H R -	- - -	- Q Q Q	
G3520_Gm	P S C S S M N S	- - - -	- - - -	S T L A	P S S S	S - - -	- - -	- S N S	- - -	- M L K S D	
G3383_Os	A A A A G R G	- - - -	- - - -	A G A A	S G S S	- - -	- - -	- - S S	- - -	- S S S A Q	
G3737_Os	- - - G R T S	- - - -	- - - -	T G S S	S S S S	S - - -	- - -	- - T P	- - -	- P A P V T	
G3515_Os	D H H G A A S R	- - - -	- - - -	T S T G	S S S S	S - - -	- - -	- - F T	- - -	- T P P P A N	
G3516_Zm	G S S A G A A P G R	- - - -	- - - -	T S G G	S S S S	S - - -	- - -	- - T T	- - -	- S A P A S	
G1792_At	R M D D Y S L R P P Y	- - - -	- - - -	A S S S	S S S S	S - - -	- - -	- - G S	- - -	- T S T N V S	
G3518_Gm	S S L P M P L A V S A	- - - -	- - - -	P P S Y	S S S S	S - - -	- - -	- - S T	- - -	- S N Y S G D	
G3519_Gm	S S L P M P L I V P -	- - - -	- - - -	P P S Y	S S S S	S - - -	- - -	- - F T	- - -	- S N Y S A D	
G3735_Mt	S S L P M P L T M P P P P S S N P P P S S	- - - -	- - - -	P P P S	S S S S	S - - -	- - -	- - S F	- - -	- S S S Y T V D	
G26_At	Q L Y P S P A T S H D R - I I V T P P S P P P P I A P D I L L D Q Y G H F Q S R	- - - -	- - - -	P P P P	S S S S	S - - -	- - -	- - -	- - -	- S S S Y T V D	
G22_At	K Y E P V R I R P R R - - - -	- - - -	- - - -	R S P E	P S V S	- - -	- - -	- - -	- - -	- D Q L T S E Q K	
G1006_At	E P D P V R I T S K R - - - -	- - - -	- - - -	S S S S	S S S S	S - - -	- - -	- - -	- - -	- S E N G K L K R R	
G28_At	E P D P V R I K S K R - - - -	- - - -	- - - -	S S F S	S S N -	- - -	- - -	- - -	- - -	- E N G A P K K R	
G1751_At	V S S P V A A D D I G - - - -	- - - -	- - - -	A K A S	A S A S	V S - - -	- - -	- - -	- - -	- A T D S V E A E	
G45_At	P N Y Y R M N N S N T - - - -	- - - -	- - - -	S D P L	R S S R	- - -	- - -	- - -	- - -	- K I G L R - G K E A V K A Y	
G1266_At	K R K H S M R R R - M - - - -	- - - -	- - - -	T N K K	T K D S	- - -	- - -	- - -	- - -	- - - F D H R	
G2512_At	K R K H S M R R R P R - - - -	- - - -	- - - -	G K K K	S S S S	S - - -	- - -	- - -	- - -	- - - S S S S	

FIGURE 12H

	410										420										430										440																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
G1752_At	Y	L	E	Q	L	L	L	M	S	S	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

FIGURE 12K

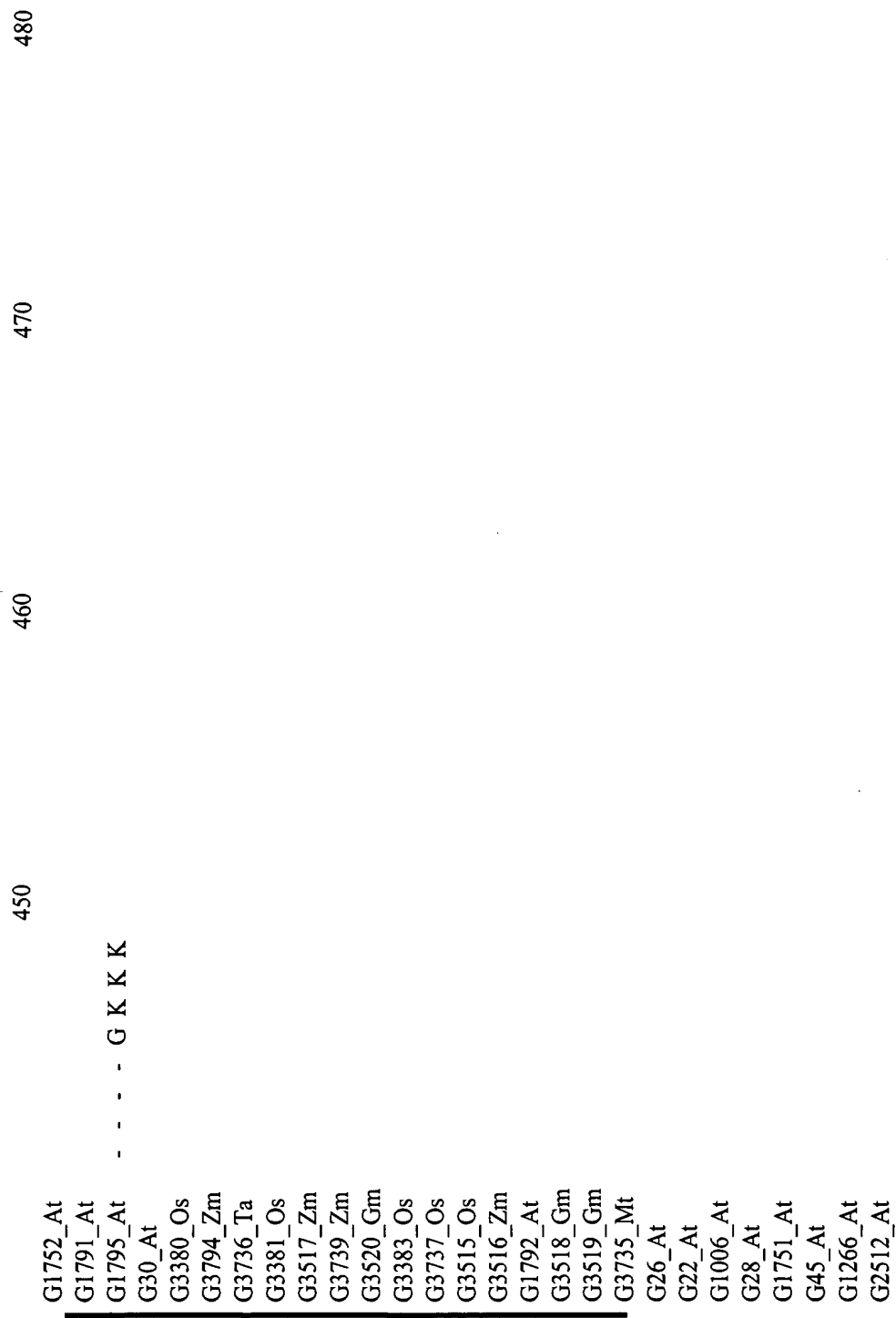


FIGURE 12L

G1752_At	L	V	V	F	E	D	L	G	A	E	Y	L	E	Q	L	L
G1791_At	V	I	E	F	E	Y	L	D	D	S	L	L	E	E	L	L
G1795_At	V	F	E	F	E	Y	L	D	D	S	V	L	E	E	L	L
G30_At	V	F	E	F	E	Y	L	D	D	S	V	L	D	E	L	L
G3380_Os	V	I	E	L	E	C	L	D	D	Q	V	L	Q	E	M	L
G3794_Zm	V	I	E	L	E	C	L	D	D	Q	V	L	Q	E	M	L
G3736-Ta	V	I	E	F	E	Y	L	D	D	D	V	L	Q	S	M	L
G3381_Os	P	I	E	F	E	Y	L	D	D	H	V	L	Q	E	M	L
G3517_Zm	V	I	E	F	E	Y	L	D	D	E	V	L	Q	E	M	L
G3739_Zm	V	I	E	L	E	Y	L	D	D	E	V	L	Q	E	M	L
G3520_Gm	V	I	E	F	E	C	L	D	D	K	L	L	E	D	L	L
G3383_Os	K	I	E	F	E	Y	L	D	D	K	V	L	D	D	L	L
G3737_Os	K	V	E	L	V	Y	L	D	D	K	V	L	D	E	L	L
G3515_Os	K	V	E	L	E	C	L	D	D	K	V	L	E	D	L	L
G3516_Zm	K	V	E	L	E	C	L	D	D	R	V	L	E	E	L	L
G1792_At	V	F	E	F	E	Y	L	D	D	K	V	L	E	E	L	L
G3518_Gm	T	F	E	L	E	Y	F	D	N	K	L	L	E	E	L	L
G3519_Gm	T	F	E	L	E	Y	L	D	N	K	L	L	E	E	L	L
G3735_Mt	-	-	E	L	E	F	L	D	N	K	L	L	Q	E	L	L
G26_At	S	S	S	S	S	S	L	N	H	Q	G	L	R	P	N	L
G22_At	E	L	D	F	T	V	D	Q	F	Y	F	D	G	S	L	L
G1006_At	K	C	E	V	-	G	D	E	T	R	V	D	-	E	L	L
G28_At	T	V	K	C	E	-	V	E	V	A	R	G	-	R	L	L
G1751_At	C	N	M	E	E	W	M	N	M	M	M	M	M	D	F	G
G45_At	L	F	E	F	E	D	L	G	S	D	Y	L	E	T	L	L
G1266_At	V	V	V	F	E	D	L	G	E	Q	Y	L	E	E	L	L
G2512_At	L	V	V	L	E	D	L	G	A	E	Y	L	E	E	L	-
					E			D				L				L

G1792
clade

FIGURE 13

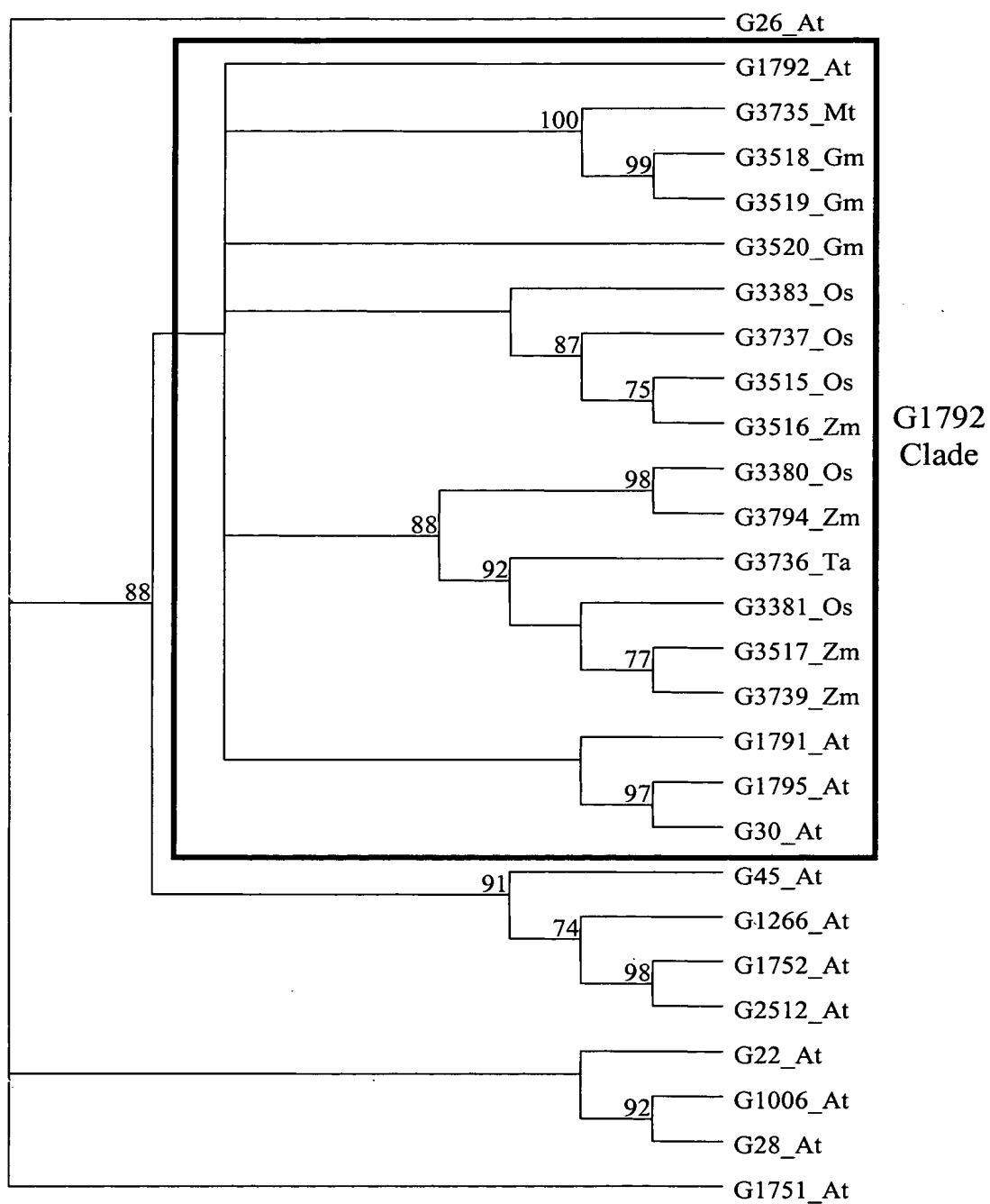


FIGURE 14

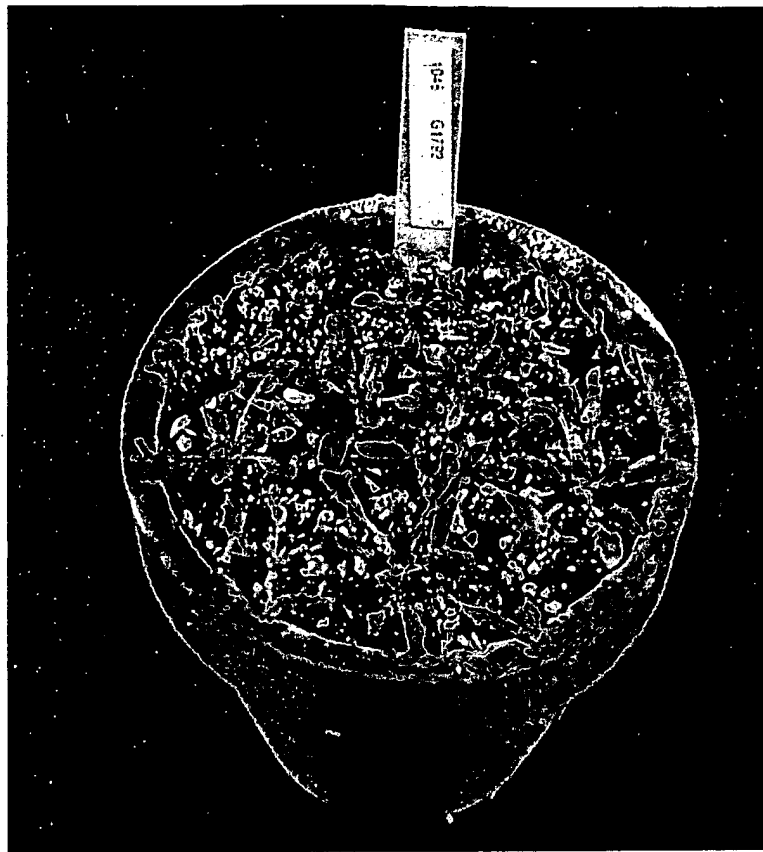


FIGURE 15A

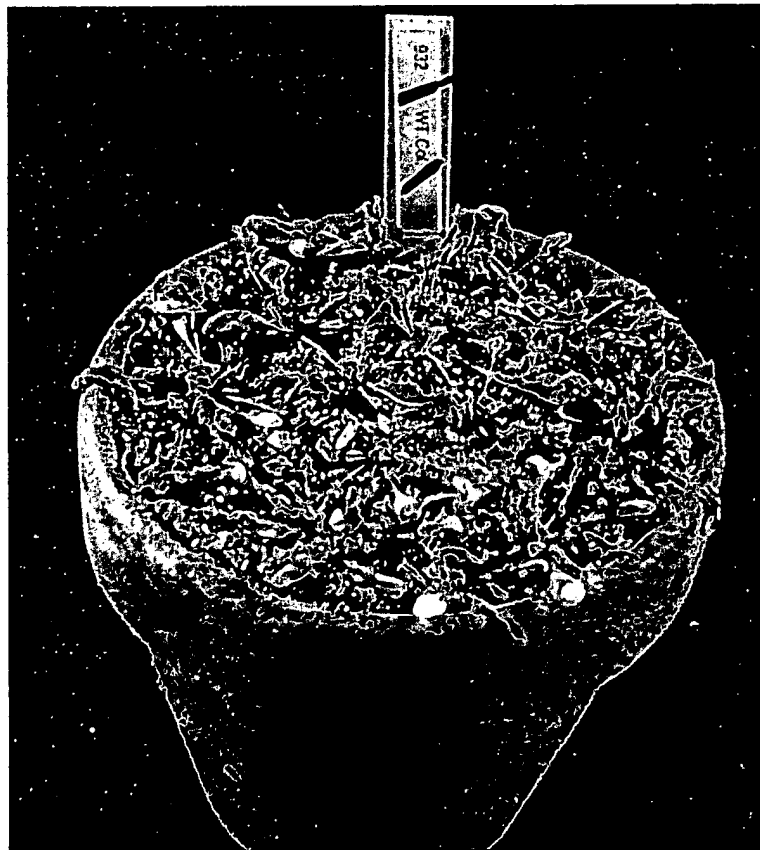


FIGURE 15B

421
G2767 ~~~~~ 490 ~~~~~
G1131 ~~~~~
G2766 ~~~~~
G2149 ~~~~~
G2555 ~~~~~
G1134 ~~~~~
G3771 ~~~~~
G3763 ~~~~~
G3764 ~~~~~
G3767 ~~~~~
G3768 ~~~~~
G3769 ~~~~~
G3765 ~~~~~
G3766 ~~~~~
G3744 ~~~~~
G3755 ~~~~~
G592 ~~~~~
G3742 ~~~~~
G3086 ~~~~~
G3782 ~~~~~
G3740 ~~~~~
G3741 ~~~~~
G3772 ~~~~~
G3746 ~~~~~
G3752 AFLADVHVS . . . SPTLCS AFQNVSSFME PV NLD AFGFQGAQNV AMLNKTS LPNGN .
G3753 ~~~~~~MLFL . . . QRQALCS TFQNASFME PV NLE AFSFQGAQSD SVLNKTT HPDGN .
G3751 AAMPAGGGFL VGEQQQHVPV AAYAAGGVLP SMAAGEETPO SFGFQSLFNG DLLQEATVSK YHHHQQQQ .
G793 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G591 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G3750 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G3748 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G3749 VWSELGSGKP AWDLTAGAVG GGGASDDHS AAFFDSDALL ASRLRQHID GGGDKPIMLQ LSDLHRHHG .
G589 KALNLKRHFNIHFNHSHSPP KKKTEAMNS SLLTPSSSP SPHLQSPA . T FDHDDFLHHI FSSTPWPSS .
G1061 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G2791 ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~ ~~~~~~
G3774 WDPNTLNDIK PPDETTSPNN NNDATTNVAS FSSFDEHSTL ASKFRNHQIS SNNNAPKNAA AAALMLQH .
G3760 AGGKAPDGA QAEQMHPQ HLGGGGGLYD DSALLASRLR QHQISGGGG EAVKQMLVQQ LADLRQEHV

FIGURE 16G

491
G2767 ~~~~~~ 560 ~~~~~~
G1131 ~~~~~~
G2766 ~~~~~~
G2149 ~~~~~~
G2555 ~~~~~~
G1134 ~~~~~~
G3771 ~~~~~~
G3763 ~~~~~~
G3764 ~~~~~~
G3767 ~~~~~~
G3768 ~~~~~~
G3769 ~~~~~~
G3765 ~~~~~~
G3766 ~~~~~~
G3744 ~~~~~~
G3755 ~~~~~~
G592 ~~~~~~
G3742 ~~~~~~
G3086 ~~~~~~
G3782 ~~~~~~
G3740 ~~~~~~
G3741 ~~~~~~
G3772 ~~~~~~
G3746 ~~~~~~
G3752 .PSLFDNAAI ASLHDSKEFL NGGSIPSEGT VLQ.A.LGAG GLKAAQOE.Q N.IRNIPPT FTSGSHLAVT
G3753 .ISVFDAAAL ASLHDSKEFI S.GRLPSFAS VQE.TNVAAS GFKTKQE.Q NAVCNVPIPT FTARNQIAVA
G3751 .LGVPSSQP HHLNDDIDF. NTGKLMSFAS GQQHVTPSID SLQIDQKEFS SGLHHLNLSS LISGPLASFN
G793 .SSGSLSGI .GGV..GPPP MMQLGSGNE GNHNHMGAI GGGPVGFHNQ MFPLGLSLDQ G..KGHGLK
G591 .SSAAGLSGV DGLGGGAPP MMQLGSGEE G..SHMGGLG GSGPTGFHNQ MFPLGLSLDQ G..KPGFLR
G3750 .SFFPGA.. PGRAAGDQP FSLALSDDAA AAAE...ASG SGKRLGVGDD AEGGSKADR ETVQLTGLFP
G3748 ..AGGEEDG SGAFSPLPLF TDR...TNVP PREEMEGGFK SPNAAAGCEH ALFNGFGVHG GSGAGQ..P
G3749 .LAAGDSDGG AAGFLPLSLF ADR...S... .QDDIDAFAK SPNGAR.GDH ALYNGFGAAG MHGAAAMQPP
G589 .VL.DDTPPP TSDCAPVTGF HHDADSRNQ .ITMIPLSHN H.....PND ALFNGFS.TG SL..P..FHL
G1061 .VV.DDAHPL PSD.....GF HGHDVDSRNQ PIMMPLNDG S.....SVH GLYNGFSVAG SL..P.NFQI
G2791 -ME.NGNNEG KGEFINQN.. NDFFLDMSM LSSLPPCWD PSLPPPPPPQ SLFHALAVDA PF..PDQFHH
G3774 .LL.RDSGLL NMPLSLPG.. NDVVDA.ST FESPNSGKA SVQTFYNGFA GSLHGVGQSS NQ..TQHFQH
G3760 LLQGMGRSTS TGGSRDGGLL LPLSLGSGS GGDVQALLKA VADSAGGAA GVFGG.SFAG SLHHHQQQQ

FIGURE 16H

[illegible]

FIGURE 16K

771

840

G2767 ~~~~~~
G1131 ~~~~~~
G2766 ~~~~~~
G2149 ~~~~~~
G2555 ~~~~~~
G1134 ~~~~~~
G3771 ~~~~~~
G3763 ~~~~~~
G3764 ~~~~~~
G3767 ~~~~~~
G3768 ~~~~~~
G3769 ~~~~~~
G3765 ~~~~~~
G3766 ~~~~~~
G3744 ~~~~~~
G3755 ~~~~~~
G592 ~~~~~~
G3742 ~~~~~~
G3086 ~~~~~~
G3782 ~~~~~~
G3740 ~~~~~~
G3741 ~~~~~~
G3772 ~~~~~~
G3746 ~~~~~~
G3752 IISAMQYLQN KGLCLMPIAL ASAINQKGM AAAAAIPPEK
G3753 ITSAMQYLQN KGLCLMPVAL ASAISTQKGV .SAASIPPEQ
G3751 MTTAMQYLQS KGLCLMPVAL ASAIQAQGT SSAAVRPEKK KNGDGDGGD EEDVKGEFDA PRRPPVGRPK
G793 VGAAMQLLQS KALCIMPISL AMAIYHSQPP DT.SSVVKPE NNPPQ~
G591 VGAAMQLLQS KALCIMPISL AMAIYDTQQT QDQP.VKHE PNTPS~
G3750 IGAAMQFLQS KALCIMPISL ASAISSATSS ASLLSRPSIR HAGAPPQTML DAAGTSPAA MSNGDDPRHA
G3748 MGTAMQYLQG KGLCLMPISL ATAISSATSS .SLLPRT... .GGGAGGSLH EGGNGTSP.P LVNG..TATG
G3749 MGSAMQYLQG KGLCLMPISL ATAISSATSS SR....SPF. ...VKDTGVP LSPNLSTTIV
G589 MGSAMQYLQG KGLCLMPISL ATTISTATCP SR....SPF. ...VKDTGVP LSPNLSTTIV
G1061 MGSAMQYLQG KGLCLMPISL ATAISSATSS SR....NPLI PGAVADAGGP SPPNLSAMTI QSTSTKMGSG
G2791 MGSAMQYLQG KGLCLMPISL ATAISSSTTH SRGSLFNPIIS SAVAAEDSNV TATAVAAPEA SS.TMDDVSA
G3774 MGSAMQYLQG KGLCLMPISL ATAISSATCP TRNVNPNPLI NAAAGATHFP TAANPAGEGP SSPSMSVLTIV
G3760 ~~~~~~

FIGURE 16L

[illegible]

FIGURE 16T

1401		1428
G2767	~~~~~	~~~~~
G1131	~~~~~	~~~~~
G2766	QHVEVRP~	~~~~~
G2149	QHQLNLKQD	QENCTGCGSE KPS~~~~~
G2555	QSQIQELTEQ	QKRCKCKPKE EQ~~~~~
G1134	QRQIQELTEE	QKRCTCIPKE EQ~~~~~
G3771	QKQIEELSEH	QRRCKCVVQE ~~~~~
G3763	QKQVKILRDT	RANCTCTSNO KH~~~~~
G3764	QKQVKILSDC	KAKCKCTSNE KHYTRTCA
G3767	QKQVQTLSDC	HAKCTCSHEK QQ~~~~~
G3768	QKQVQTLSDC	HAKCTCSHEK QQ~~~~~
G3769	QKQVQTLSDN	RAKCTCSHKK QQ~~~~~
G3765	QKQFKTLSDK	RAKCKCINMQ KSEADRVA
G3766	QKQFKTLSEK	RANCKCISMP KADTNQIA
G3744	QKQVKGNDL	RANCTCSA.K HQYSG~~
G3755	QKQVKVLKES	QDNCTCSASK NOQHSC~~
G592	QRQYKILNDN	RANCKCMNKE KCSI ~~~~
G3742	QKQVKVLNDS	RSSCTCSASK QKHFAG~~
G3086	QEQVKALEES	RARCRCSA~ ~~~~~
G3782	QKQVQELAEN	RAKCTCTHNP DCAYKT~~
G3740	QSQLQALKHE	QEKCTC.CSR P~~~~~
G3741	QSQLQTLKED	KEKCTCSCKQ ASRNRPAD
G3772	QTQVQKLHKE	MENCTCGCKQ SK~~~~~
G3746	QGVQVKKLHD	QANCTCSGKH DC~~~~~
G3752	~~~~~	~~~~~
G3753	~~~~~	~~~~~
G3751	~~~~~	~~~~~
G793	~~~~~	~~~~~
G591	~~~~~	~~~~~
G3750	~~~~~	~~~~~
G3748	~~~~~	~~~~~
G3749	~~~~~	~~~~~
G589	~~~~~	~~~~~
G1061	~~~~~	~~~~~
G2791	~~~~~	~~~~~
G3774	~~~~~	~~~~~
G3760	~~~~~	~~~~~

FIGURE 16U

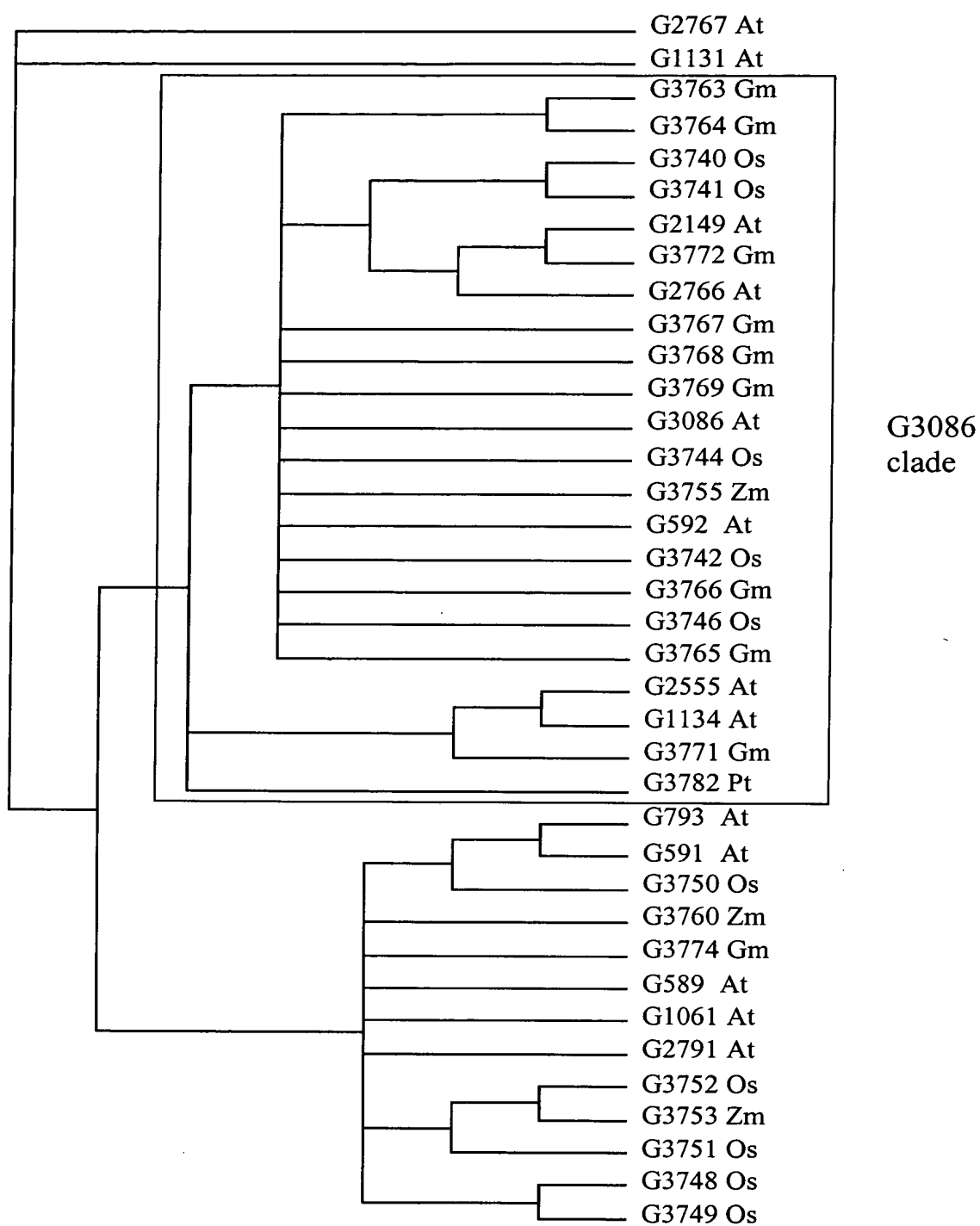


FIGURE 17

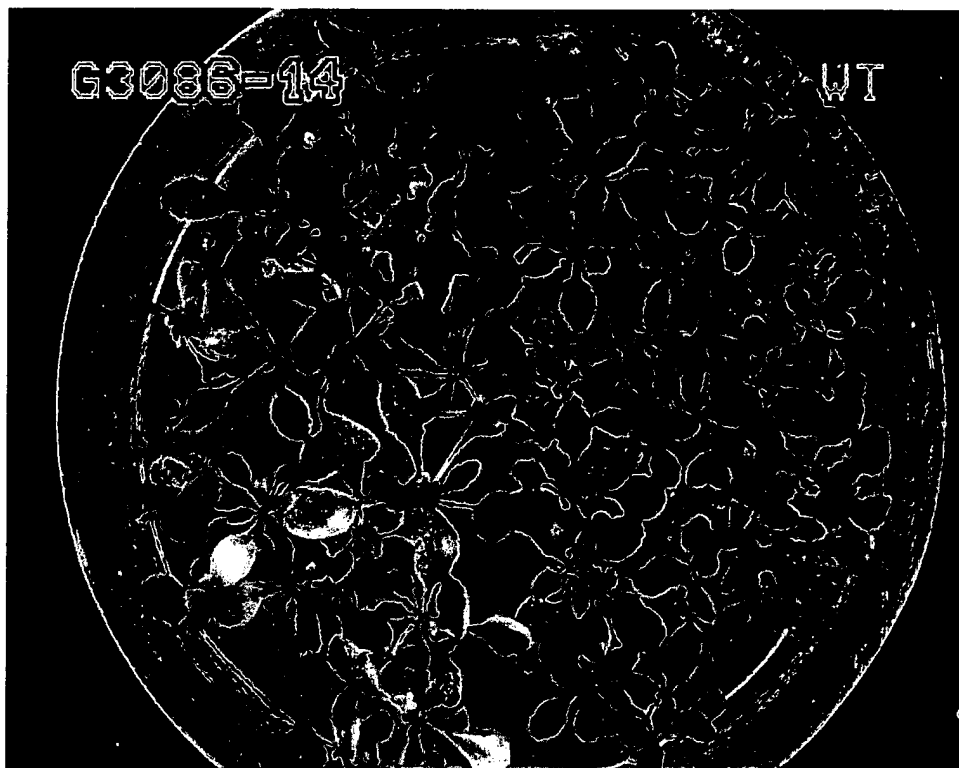


Figure 18A

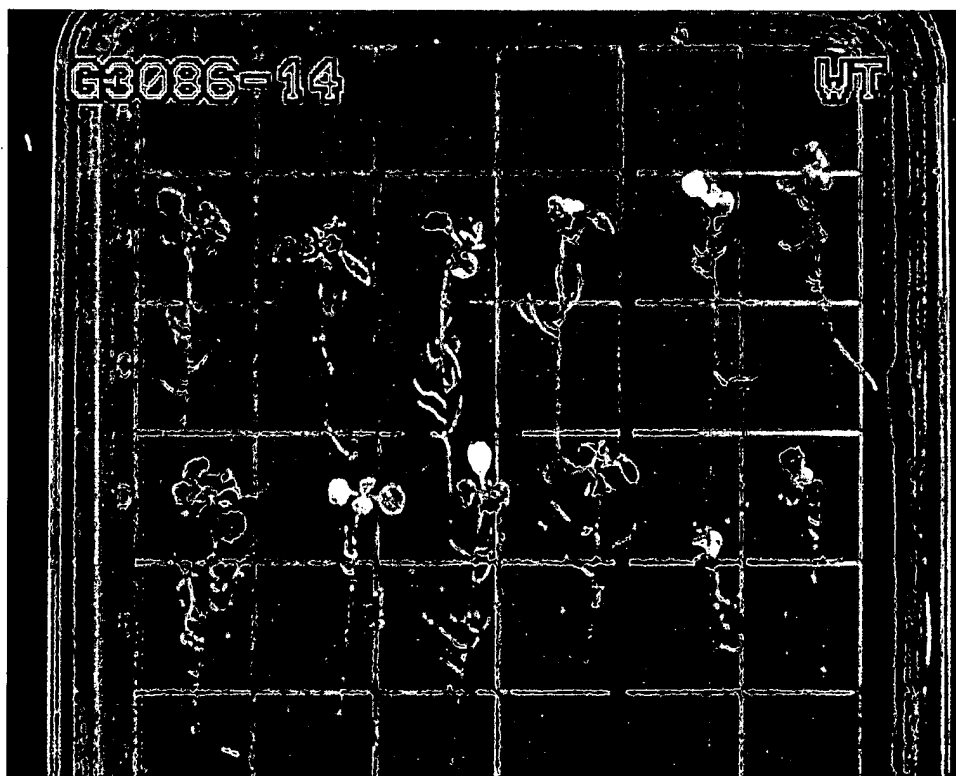


Figure 18B

G3810_Gm	-----
G3811_Gm	-----
G3824_Le	-----
G922_At	-----
G3812_Gm	-----
G3814_Os	-----
G3813_Os	-----
G3827_Os	-----
G306_At	MAESG--DFN--GGQPPPHSPLRTTSSGSSS-----NNRGPPPPPPPLVMVRKRLA 49
G3821_Ps	MAACA--LFNGVGGGNTTPDETNNNSTSNSSNISTEDFHNMPQQQPHHSERKLLRKRNA 57
G3822_Zm	MPPPPPPPLTPYCRRCPPPHLPPPPSPSPNHFLH--YHQLDHQEAAAAAMVVRKRP 57
G2738_At	-----
G3009_At	-----
G307_At	-----
G308_At	-----
G309_At	-----
G3816-Ta	-----
G3817_Os	-----
G3818_Gm	-----
G3010_At	-----
G3826_Le	-----
G644_At	-----
G3823_Os	-----
G3820_Os	-----
G1768_At	-----
G3815_Os	-----
G3825_Le	-----
G852_At	-----
G3819_Os	-----
G1767_At	-----

FIGURE 19A

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	SEMSSNPDYNNSS-----RPPRRVS	69
G3821_Ps	SEMELQLHNNNNNNNDYHRFSRRTNNTSSLNCSLPATTOQKGVTTTTTTTLASSGNNNNNN	117
G3822_Zm	SDMDLPPPPRRHVT-----	70
G2738_At	-----	
G3009_At	-----	
G307_At	-----	
G308_At	-----	
G309_At	-----	
G3816_Ta	-----	
G3817_Os	-----	
G3818_Gm	-----	
G3010_At	-----MGSYPDGFPG	10
G3826_Le	-----MEALFQEQLFP	11
G644_At	-----MITEPSLTGISG	12
G3823_Os	-----	
G3820_Os	-----MVIELPFDNQYTTTETEOPHDGS	23
G1768_At	-----	
G3815_Os	-----	
G3825_Le	-----	
G852_At	-----	
G3819_Os	-----	
G1767_At	-----	

FIGURE 19B

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	-----	99
G3821_Ps	-----	177
G3822_Zm	-----	90
G2738_At	-----	
G3009_At	-----	
G307_At	-----	
G308_At	-----	
G309_At	-----	
G3816_Ta	-----	
G3817_Os	-----	
G3818_Gm	-----	
G3010_At	-----	65
G3826_Le	-----	60
G644_At	-----	68
G3823_Os	-----	14
G3820_Os	-----	81
G1768_At	-----	
G3815_Os	-----	
G3825_Le	-----	
G852_At	-----	MVEQ 4
G3819_Os	-----	
G1767_At	-----	

FIGURE 19C

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	-----PLS-----	VCGFGLPVFPSPDRGRNVMSVQPMQDSS 133
G3821_Ps	STSAANYTHYQQPLVEEQNTLPEICGFGLPLFPSONNQTNRTNNSSNNRNTNTVVDV	237
G3822_Zm	-----SSASAQLPALPTQLHQLPPAFQHHAPEVDVPAHPAPA	127
G2738_At	-----MKRGYGETWDPPPK-----	PLPASRSGEGPSMADKKKADDDNNNSNMDDDELLAVLG 51
G3009_At	-----MKRSHQET-----	SVEEEAPSMVEKLENGCGGGDDNMDEFLAVLG 41
G307_At	-----MKRDHHQFQRLSNHGTSSSSSSISKDKMMVVKKEEDGGN-----	MDELLAVLG 51
G308_At	-----MKRDHHHHHQ-----	DKTMMNNEEDDNG-----MDELLAVLG 34
G309_At	-----MKREHNHRES-----	SAGEGSSSMITVIKEEAAG-----VDELLVVLG 39
G3816-Ta	-----MKREYQDAGG-----	SGGG--GGMGSSEDKMMVSAAGEGEEVDELLAALG 45
G3817_Os	-----MKREYQEAGG-----	SSGGSSADMGSCDKVMAG--AAGEEDVDELLAALG 46
G3818_Gm	-----	MASSSSNGSSSGSKSWDIDGDLAGFG 26
G3010_At	KAVAGDLLSSSSDDADFSDSVLKYISQVLMEEED--MEEKPCMFHDALALQAAEKSLEYEALG	124
G3826_Le	-----PQEEGEKDYSDAMYKFLSQMLMEEDDLENKPCMFHDCMALQAKERYLSVDLH	112
G644_At	-----EDPADDFDFSDAVLGYISQMLNEED--MDDKVCMLQESLDLEAAERSLEYEAI	119
G3823_Os	-----	LDYINRILMEED--IDEKISIKKGQDALQATEKPFYDILG 52
G3820_Os	-----LSLGQIRIRSSDALCYISRVLMED--	VDERVDLHQGEAALQAAEKPFFYDILG 131
G1768_At	-----	
G3815_Os	-----	MPYYNNNSVPSSGGNGRIFYITQNHQDAH 26
G3825_Le	-----	MDSHHLVAYGVTGSDLSYSSCPTVSP 26
G852_At	TVVREHIKARVMSLVRSAEPSSYRNPKLYTLNENGNNNGVSSAQIFDPPDRSKNPCLTDDS	64
G3819_Os	-----	MGMSPEPCNSISDCSQQQSHHLTLTQQQDSTIICTN 36
G1767_At	-----	MDTLFRLVSLQQQQQSDSIITNQSSLSRTSTTTTG 35

FIGURE 19D

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	-SSS-----ASPTVWVDIIRDLIHSS--TSVSIPQLIQNVRDIIFFCPNPLGALLEYR	184
G3821_Ps	VSSSPSMEETSATTNWIDGILKDLIHTS--NSVSIPQLINNVREIIYPCNPNLALVLEHR	295
G3822_Zm	AHAQAGGEATASTTAWVDGIIRDIIGSSGGAASVITQLIHNVREIIHPCNPGLASLLELR	187
G2738_At	YKVRSEMAEVAQKLEQLEMVLSN-----DDVG-STVLNDSVHYNPSDLSNWVES-	100
G3009_At	YKVRSSDMADVAQKLEQLEMVLSN-----DIASSNAFNDTVHYNPSDLSGWAQS-	91
G307_At	YKVRSEMAEVALKLEQLETMSNV-----QEDGLSHLATDTVHYNPSSELYSWLDN-	102
G308_At	YKVRSEMAADVAQKLEQLEVMMNSV-----QEDDLSQLATETVHYNPAELYTWLDS-	85
G309_At	YKVRSSDMADVAHKLQLEMVLG-----DGISNLSDETVHYNPSDLSGWVES-	86
G3816_Ta	YKVRASDMADVAQKLEQLEMAMGMGVGAGAAPDDSFATHLATDTVHYNPTDLSWVES-	104
G3817_Os	YKVRSSDMADVAQKLEQLEMAMGMGVSAPGAADDGFVSHLATDTVHYNPSDLSWVES-	105
G3818_Gm	YKVRSELQHVAEENMERLENVMDIVN-----SSTNNNISQLASDTVFNPSDIGSWVDI-	80
G3010_At	EKYPSSSSASSVDHPERLASDSPDGCSCGGAFFSDYASTTTTSSDSHWSVDGLEN-RPS-	182
G3826_Le	GSENNYSPQSVIINPHDSSS-----FLSNYSPDSIESP---QWDLN-----	150
G644_At	KKYPP-SPERNLAFAERNSE-----NLDRVVPNGYTGDCIGFGNGGKPLSSG-	167
G3823_Os	KAYPSSSKETAINGDSQADYP-----DNGSS--SYHEQACSGSFVSDLLGSQ----	97
G3820_Os	QVYPPSLNRLALHSANEPTP-----DESSRNHYHNRHSHSHSFNMLQPLPTP-	181
G1768_At	-----MDNVR-----GSIMLQPLPEI-	16
G3815_Os	YASSDDGSQKIGSSPQAFEAP-----YCTLESSSANGAHPAH-----SSASSHSISPI-	74
G3825_Le	LENRPFGTSKFDSGNSPLVNY-----FNSETFNTVSDYQEQP-----SCTENLSGASS-	74
G852_At	YPSQSYEKYFLDSPTDEFVQHPIGSGASVSSFGSLDSFFYQSRPVLGCSMEFQLPLDST-	123
G3819_Os	QELDYRYRFYDVDEAAAFDGNVEVELVSRFSKVRMDHMISSPYQPTWSPAQAADVVGSS-	95
G1767_At	SPQTAYHYNFPQNDVVEECFNFFMDEEDLSSSSSHHHHHNNPNNTYYSPFTTPTQYHP-	94

FIGURE 19E

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	LRSL-----	MLL 191
G3821_Ps	LRLLEPNTCVPERKRNSTEQSGVN-----	VNGNVL 326
G3822_Zm	LRSL-----	LAA 194
G2738_At	-----	MLS 103
G3009_At	-----	MLS 94
G307_At	-----	MLS 105
G308_At	-----	MLT 88
G309_At	-----	MLS 89
G3816_Ta	-----	MLS 107
G3817_Os	-----	MLS 108
G3818_Gm	-----	LLS 83
G3010_At	WLHTPMPNSFVFQSTSRNSVTGGGGGNSAVYGSFGDDL-----	VSNMFKDDELAMQFKK 239
G3826_Le	-----FESPASMSTLS-----	NHDSFFTSFGNG-----HFEE 177
G644_At	-----FTLDFRNPQSCSSILSVP-----	QSNGLITIYGDGIDESSKNNRENHQSVWLFRR 217
G3823_Os	-----	DAHSITTDWSSEFD-----RLALQFRR 119
G3820_Os	-----LSPYSYGRSLFLP-----	NQHLVSTAWTSTFG-----IPGFQIRR 216
G1768_At	-----	AES 19
G3815_Os	-----	SGS 77
G3825_Le	-----	SSG 77
G852_At	-----	STS 126
G3819_Os	-----	ETS 98
G1767_At	-----	

FIGURE 19F

G3810_Gm	-----	
G3811_Gm	-----	
G3824_Le	-----	
G922_At	-----	
G3812_Gm	-----	
G3814_Os	-----	
G3813_Os	-----	
G3827_Os	-----	
G306_At	DPSSSDPSPQTFE-----	PLYQI 210
G3821_Ps	AASNVNSSVKLMN-----	RVDDV 345
G3822_Zm	DPAPLPPPPQPOQH-----	ALLHG 213
G2738_At	ELNNPASSDLDT-----	115
G3009_At	DLN--YYPDLDP-----	104
G307_At	ELNPPPLPASSNGL-----	119
G308_At	DLNPP---SSN-----	96
G309_At	DLDPTRIQEKPD-----	101
G3816_Ta	ELNAPPPPLPPAP--QLNASTSS-----	TVTGGG 135
G3817_Os	ELNAPLPPIPPAPPAARHASTSS-----	TVTGGG 138
G3818_Gm	EFDQTAS-----	90
G3010_At	GVEEASKFLPKSSQLFIDVDSYIPMNSGSKENGSEVFVKTEKKDETEHHHHHSYAPPPNR	299
G3826_Le	GAVNVLQSGSSN-----	SPTG 194
G644_At	EIEEANRFNPEENELIVNFR-----	EENC 241
G3823_Os	GVEEAKRFIPNIEKLVDDPEKN-----	GLYACKQTETTE--QKGKHENK 162
G3820_Os	GAEAAKRFVPIIDKLVIDLDTDR-----	GLSISKMTTKAKVGDKKRYAIFE 262
G1768_At	-----	
G3815_Os	PLSHHDSHSDHT-----	89
G3825_Le	SSLDYNQYFHRP-----	89
G852_At	STRLLGDYQAVS-----	138
G3819_Os	RVRKKRFWDVLES-----	111
G1767_At	-----	

FIGURE 19G

G3810_Gm	-----
G3811_Gm	-----
G3824_Le	-----
G922_At	-----MVAMFQEDNG 10
G3812_Gm	-----
G3814_Os	-----MFQDDML 7
G3813_Os	-----MVQDEGS 7
G3827_Os	-----MIT-FGL 6
G306_At	S-----NNPSPPPQQQQHQ-----QQQQQHKP-----PPPPIQQQERENS-ST 247
G3821_Ps	VPTSLHFSDSTLLNQONQNMFPNWGATQINNNNNPSVSLVTLPSQPLSTQQDQQH-QL 404
G3822_Zm	APAAAPAGLTLPPPPPLPK-----RRHEHPP-----PCQQQQQEEPHPAQOS 256
G2738_At	-----TRSCVDRSEYDLRAIPGLSAFPKEEVF-----DEEASSKR 151
G3009_At	-----NRIC-----DLRPIT-----DDDECCS-----SNSNSNKR 129
G307_At	DPVLPSP EICGFPASDYDLKVIPGNAIYQFPAIDSSSSNNQNKRLKSCSPDSMTSTS 179
G308_At	-----AEYDLKAIPGDAILNQFAIDSASSNQ-----GGDTYTTNKR 135
G309_At	-----SEYDLRAIPGSAVYPR-----DEHVTRRS 125
G3816-Ta	--YFDLPPSVDSSTSIYALRPIPSAGATAPADLSADSVRDPKRMRTGGSSTSSSSSSS 193
G3817_Os	SGFFELPAAADSSSTYALRPISLPVATADPS-AADSARDTKRMRTGGSTSSSSSSS 197
G3818_Gm	-----LPYDFSDFLD----- 100
G3010_At	LTGKKSHWRDEDEDFVEERSNKQSAVYVEES-ELSEMFDKILVCGPGK-----PVC I 350
G3826_Le	LREKKNRHR-GDVAADQQRSNKQMATFVHDESEPLEMYDNVLLCLNPP-----YV 243
G644_At	VSKARKNSSRDEICVEEERSKKLPAVFGEI-LRSDVVVKILVHVPGGESMKEFNALRDV 300
G3823_Os	IRNHDPHPVHEHIELMEARNSKHMAISTSET-IRDEMFD SILLCN-RQLPG-----EVAN 215
G3820_Os	LTDQRHSPYTTDL DILEGRNSKRYAITYCEI-IRNDMFD RVL L CYGVENFA-----EASN 316
G1768_At	-----IDDAIC-HEL SMWPD DA----- 35
G3815_Os	-----YNPPSASCVTEITDLQIKLRELENA I LGPELDIAYDSP----- 128
G3825_Le	-----SPSEDHLP EAPYSRNMKHTLLQLESALMGPDKEAMKSSPYLG ENMGAQTSGQRYK 144
G852_At	-----YSPSMDVVEEFDDEQMR SKIQELERALLGDEDDKMVGIDN----- 178
G3819_Os	-----CK 113
G1767_At	-----ATSST 99

FIGURE 19H

G3810_Gm	-----MMSL--SPSLGSPN-NLLFREMKSEERGLYLIHLLLTCAHVA--AG	42
G3811_Gm	-----MMSLSVSPSLGSP-----YHMKCELRLGLVLIHLLLAGANFVA--TG	39
G3824_Le	-----	
G922_At	TSSVASSPLQVFTMSLNRPTLLASSSPFFHCLKDKPEERGLYLIHLLLTCAHVA--SG	68
G3812_Gm	-----MDGLGSPS--QWLRRLRWDSQGLNPISLLIDCAKCV--SG	37
G3814_Os	SSATS-----SPASSVSPSPSPNGSVWQELSHDQQSVRLIGLLYQCAAEVS--AG	57
G3813_Os	SSSVTSSPLHNFNMPLHPAAAAAPTTPWMVREL--SDERGLCLIHLLLNCAAAAA--AG	64
G3827_Os	NSRPHPEFRNDLRPSSSLAAGESESPKAVERLEREGCTRSGSSRRQPRRGAAAL--AV	64
G306_At	DAPPQPETVTATVPVAVQNTAEALRERKEEIKRQKQ-DEEGLHLLTLLQLCAEAVS--AD	304
G3821_Ps	QQHP-EDLAPATTTTTSAEALARKKKEEIKEQKKDEEGLHLLTLLQLCAEAVS--AE	461
G3822_Zm	PKAPTAEETAAAAAQAQAAAAAAKERKEEQRRKQR-DEEGLHLLTLLQLCAEAVN--AD	313
G2738_At	IRLG-----SWCESSD-ESTRSVVLVDSQETGVRLVHALVACAEAIH--QE	194
G3009_At	IRLG-----PWCDSVTSESTRSVVLE-ETGVRLVQALVACAEAVQ--LE	171
G307_At	TGTQIGGVIGTIVTT--TTTTTTAAESTRSVILVDSQENGVRVHALMACAEAIQ--QN	235
G308_At	LKCSNG-----VVETTTATAESTRHVVLVDSQENGVRVHALVACAEAVQ--KE	182
G309_At	K-----RTRIESELSTRSVVVLVDSQETGVRLVHALVACAEAVQ--QN	166
G3816-Ta	SLGGGA-RSSVVEAAPVAAAAANAT--PALPVVVVDTQEAGIRLVHALVACAEAVQ--QE	248
G3817_Os	SLGGGASRGSVVEAAPATQAAAAANAPVAVVVVDTQEAGIRLVHALVACAEAVQ--QE	255
G3818_Gm	-----LDTDQONHKTPTLVTMEEDSGIRLVHTLMTCADSVQ--RG	138
G3010_At	LNQNFPTESAKVVTAQSNGAKIRGKKST-STSHSNDSSKKTADLRTLVLVCAQAVS--VD	407
G3826_Le	EQHSATSI TSYSPPNEAKKTSKVGRPRG-GRKHSSIVKKEMVDLRLALLTQCAQAMA--NY	300
G644_At	LKKGVEKKKASDAQGGKRRARGRGRGGGGQNGKKEVVDLRSLLIHCAQAVA--AD	358
G3823_Os	LRGMMAKEASDNPKKFQSKGYGKGQRP---HSSKKKQKEAIDL SVLLIQCAQAI--SN	270
G3820_Os	LRKIMTKQARKNSLNGQTR--GSAQRKL--RGMKQLKKDVVDLRNLLIHCAQAVA--AD	369
G1768_At	-----KDLLL-----IVEAISRGDLKLVLVACAKAVS--EN	64
G3815_Os	-----ESALQPNIMATPENWRQLLGINTGDLKQVIAACGKAVA--EN	168
G3825_Le	AWNKEAQVVRHQSVVSIILNGIQSDKRDNVMEDLPLQGVPSNLKQLLIACARALA--EN	202
G852_At	LMEIDSEWSYQNESEHQDSPKESSADSNSHVSSKEVVSQATPKQILISCARALS--EG	236
G3819_Os	QKVEAMEAMDTPATATFRVAGDGGGGGGGAGGGGADGMRLVQLLVACAEAVA--CR	171
G1767_At	PSSTAAAAALASPYSSSGHNDPSAFSIPQTPPSFDFSANAKWADSVLLEAARAFS--DK	157

FIGURE 19I

G3810_Gm	NLENANTTLEQISMLASPDG--DTMQRIATYFMESLADRILKTPWGIHR-----ALNS--	93
G3811_Gm	DLQYAYLTLEQISQHASLDG--DTMQRIASYVSEALADRILKTPWGIHR-----ALNS--	90
G3824_Le	-----MQRIASYFTEALADRILRSPWGLYK-----ALRS--	29
G922_At	SLQNANAALQSLASPDG--DTMQRIAAAYFTEALANRILKSWPGLYK-----ALNATQ	121
G3812_Gm	SIKNADIGLEYISQISSPDG--NAVQRMVTFSEALGYRIKNLPGVYK-----SLNP--	88
G3814_Os	SFDRANLCLEHITQLASLDAP-HALQRLAAVFADALARKLLNLILGLSR-----ALLSS-	110
G3813_Os	RLDAANAALHIAASLAAPDG--DAMQRVAAAFAEALARRALRAWPGLCR-----ALLLP-	116
G3827_Os	ASAPSLASCCRRPSIRKLLS--LPLHARPVPPPGSGMRQPLRPPSPAAALHPR--GAAVAP-	119
G306_At	NLEEANKLLLEISQLSTPYG--TSAQRVAAAYFSEAMSARLLNSCLGIYAA---LPSRWM	358
G3821_Ps	NLEQANKMLLEISQLSTPFG--TSAQRVAAAYFSEAISARLVSSCLGIYAT---LPVSSH	515
G3822_Zm	NLDDAHQTLLEIAELATPFG--TSTQRVAAAYFAEAMSARLVSSCLGLYAP---LPPGSP	367
G2738_At	NLNLADALVKRVGTLAGSQAG--AMGKVATYFAQALARRIYRDYTAETDVC-----	243
G3009_At	NLSLADALVKRVGGLLAASQAG--AMGKVATYFAEALARRIYRIHPSA-----	216
G307_At	NLTLAEALVKQIGCLAVSQAG--AMRKVATYFAEALARRIYRLSPQ-----	280
G308_At	NLTVAEALVKQIGFLAVSQIG--AMRQVATYFAEALARRIYRLSPSQ-----	227
G309_At	NLKLADALVKHVGLLASSQAG--AMRKVATYFAEGLARRIYRIYPRD-----	211
G3816_Ta	NLSAAEALVKQIPLLAASQGG--AMRKVAAAYFGEALARRVFRFPQDPS-----	295
G3817_Os	NFAAAEALVKQIPTLAASQGG--AMRKVAAAYFGEALARRVYFRP-ADS-----	301
G3818_Gm	DLAFAGSLIENMQGLLAHVNTNIGIGKVAGYFIDALRRRILGQGVFQTLs-----	188
G3010_At	DRRTANEMLRQIREHSSPLGN--GSERLAHYFANSLEARLAGTGTQIYTA-----LS	457
G3826_Le	DSRTANELLMRIREHSTPHGD--GTERLAHYLANALEARLSGTGTALYTA-----YA	350
G644_At	DRRCAGQLLKQIRLHSTPFGD--GNQRLAHCFANGLEARLAGTGSQIYKG-----IV	408
G3823_Os	NHPFASELLRKIRHHALPDGD--GSQRLANCFADGLEARLAGTGSQMYEK-----LM	320
G3820_Os	DRISASELVKKIRQHSSPDGD--SNQRLAFYLVDGLEARLAGIGSQVYRK-----LM	419
G1768_At	NLLMARWCMGELRGMVSI SGE--PIQRLGAYMLEGLVARLAASGSSIYKS-----LQ	114
G3815_Os	DVRLTELLISELGMVSVSGD--PLQRLGAYMLEGLVARLSSSGSKIYKS-----LK	218
G3825_Le	KLDDFEILVAKARSVSVTGD--PIQRLGAYIVEGLVARKELSGTTIYRS-----LK	252
G852_At	KL EEALSMVNELRQIVSIQGD--PSQRIAAAYMVEGLAARMAASGKFIYRA-----LK	286
G3819_Os	DRAQAAAALLRELOQAGAPVHGT--AFQRVASCFVQGLADRLPLAHPPALGPASMAFCIPPS	229
G1767_At	DTARAQQIILWTNLNELSSPYGD--TEQKLASYFLQALFNRMGTGSGERCYRT---MVTAAAT	212

FIGURE 19J

G3810_Gm	TRMTLISDEILVQKLFFELFPFLKVAFVLTNQAIIEAMEGEK--VIHIIDLN-----AAEA	147
G3811_Gm	SRITMVSEIILVQKLFFELLFPFLKFSYILTNQAIVEAMEGEK--MVHIVDLY-----GAGP	144
G3824_Le	TKLSVVSEIILVRKMFEEIFPFLKVAFVVTNQAIIEAMEGEK--MVHIVDLN-----AAEP	83
G922_At	TRTNNVSEIHRRLFFEMFPILKVSYLLTNRAILEAMEGEK--MVHVIDLD-----ASEP	175
G3812_Gm	SKTSLSSDILVQYFYELCPFLKFSYILTNHAI AEAMECEK--VVHIIIDLH-----CCEP	142
G3814_Os	ANSADAHLPVARRHMFDPFLPFLKLAYLTNHAILEAMEGER--FVHVVDGSG--PAANP	166
G3813_Os	RASPTPAEVAARRHFLDLCPLRLAGAAANQSILEAMESEK--IVHVIDLG-----GADA	170
G3827_Os	TRSPGAAVAGAEMRQQVSYC-WRPVRPPPPAGG--EEAGGEL--LLRGREL-----	164
G306_At	PQT-HSLKMVSASFQVFNIGISPLVKFSHTANQAIQEAFEKED--SVHIIIDL-----IMQG	411
G3821_Ps	TP--HNQKVASAFQVFNIGISPFVKFSHTANQAIQEAFEREE--RVHIIIDL-----IMQG	567
G3822_Zm	AAARLHGRVAAAFQVFNIGISPFVKFSHTANQAIQEAFEREE--RVHIIIDL-----IMQG	421
G2738_At	-AAVNPSFEFVLEMHFYESCPLYLKFAHFTANQAILEAVTTAR--RVHVIDLG-----LNQG	296
G3009_At	-AAIDPSFEEILQMHFYETCPYLKFAHFTANQAILEAVTTSR--VVHVIDLG-----LNQG	269
G307_At	-NQIDHCLSDTLQMHFYETCPYLKFAHFTANQAILEAFEGKK--RVHVIDFS-----MNQG	333
G308_At	-SPIDHSLSDTLQMHFYETCPYLKFAHFTANQAILEAFQGKK--RVHVIDFS-----MSQG	280
G309_At	-DVALSSFSDDTLQIHFFYESCPYLKFAHFTANQAILEVFFATAE--KVHVIDLG-----LNHG	264
G3816_Ta	-SLDDAAFADLLHAHFYESCPYLKFAHFTANQAILEAFAGCR--RVHVVDGFG-----IKQG	348
G3817_Os	-TLDDAAFADLLHAHFYESCPYLKFAHFTANQAILEAFAGCH--RVHVVDGFG-----IKQG	354
G3818_Gm	-SSSYPYEDNVLYHHYYEACPLYLKFAHFTANQAILEAFNGHD--CVHVIDFN-----LMQG	241
G3010_At	SKKTSAADMLKAYQTYMSVCPFKKAAIIFANHSMMRFT--ANANTIHIIDFG-----ISYG	511
G3826_Le	PSRISAAANILKAYKAFIRACPFKLLSNI FANKYIRKVI--AGAPKIHIIIDFG-----ILYG	404
G644_At	SKPRSAAAVLKAHQQLFLACCPFRKLSYFITNKTIRDLVG--NSQRVHVIDFG-----ILYG	462
G3823_Os	AKQTSTRDMLKAYHLYFVACPFEMVTYYFSNKTIIDALEGKT--TLHIVDVG-----ILFG	374
G3820_Os	ASRTSAESLLKAYSLLYSACPFERASFAFAYANQTILDASKGQPRKVHIVHFG-----ICTG	475
G1768_At	SREPESEYFLSVYVVLHEVCPYFKFGYMSANGAIAEAMKDEE--RIHIIDFQ-----IGQG	168
G3815_Os	CKEPTSSSELMSYMHLLEYICPFFKFGYMSANGAIAEAIKGEN--FVHIIDFQ-----IAQG	272
G3825_Le	CKEPAGKDLFSYMYILYEICPYLKFGYMAANGAIVEACRNE--RIHIIDFQ-----IAQG	306
G852_At	CKEPPSDERLAAMQVLFVPCPCFKFGFLAANGAILEAIKGE--EVHIIDFD-----INQG	340
G3819_Os	SCAGRDGARGEALALAYELCPYLRFHFVANACMLEAFEGES--NVHVVDLGMTLGLDRG	287
G1767_At	EKTCSFESTRKTIVLKQFQEVSPWATFGHVAANGAILEAVDGEA--KIHIVDIS-----STFC	266

FIGURE 19K

G3810_Gm	AQWIALLRVLSAHP--EGPPHLRITGVHQKK-----EILDEVAHRLTTEEAEKLDI	195
G3811_Gm	AQWISLLQVLSARP--EGPPHLRITGVHHKK-----EVLDMQMAHKLTEEAEKLDI	192
G3824_Le	LQWRALLQDLSARP--EGPPHLRITGVHQQK-----EVLDMQMAHVLTQEA EKLDI	131
G922_At	AQWLALLQAFNSRP--EGPPHLRITGVHHQK-----EVLEQMAHRLIEEA EKLDI	223
G3812_Gm	TQWIDLLLTFKNRQ--GGPPHLKITGIHEKK-----EVLDMQNFHLTTEAGKLDI	190
G3814_Os	VQWIALFHAFRR--EGPPHLRITAVHDSK-----EFLANMAAVLSKEAEAFDI	214
G3813_Os	TQWLELLHLLAARP--EGPPHLRLTSVHEKK-----ELLTQTAMALTKEAERLDV	218
G3827_Os	-LLQLLLIYLVWD--GGTLLELSIFFLL-----FCSLVTAMALTKEAERLDV	211
G306_At	LQWPGLFHILASRP--GGPPHVRLTGLGTSM-----EALQATGKRLSDFTDKLGL	459
G3821_Ps	LQWPGLFHILASRP--GGPPYVRLTGLGTSM-----ETLEATGKRLSDFANKLGL	615
G3822_Zm	LQWPGLFHILASRP--GGPPRVRLTGLGASM-----EALATGKRLSDFADTLGL	469
G2738_At	MQWPALMQALALRP--GGPPSFRLTGIGPPQT-----ENSDSLQQLGWKLAQFAQNMGV	348
G3009_At	MQWPALMQALALRP--GGPPSFRLTGVGNP-----SNREGIQELGWKLAQLAQAIGV	319
G307_At	LQWPALMQALALRE--GGPPTFRLTGIGPPAP-----DNSDHLHEVGCKLAQLAEAIHV	385
G308_At	LQWPALMQALALRP--GGPPVFRLTGIGPPAP-----DNFDYLHEVGCKLAHLAEAIHV	332
G309_At	LQWPALIQALALRP--NGPPDFRLTGIGYSLT-----D---IQEVGWKLGQLASTIGV	312
G3816_Ta	MQWPALLQALALRP--GGPPSFRLTGVGPPQP-----DETDALQQVGWKLAQFAHTIRV	400
G3817_Os	MQWPALLQALALRP--GGPPSFRLTGVGPPQP-----DETDALQQVGWKLAQFAHTIRV	406
G3818_Gm	LQWPALIQALALRP--GGPPLLRLTGIGPPSS-----DNRDTLREIGRLAEELARSVNV	293
G3010_At	FQWPALIHRLSLSRP--GGSPKLRTGIELPQRGF-----RPAEEFRRQVIAWLDTVSDTMF	566
G3826_Le	FQWPCLIQGLSMRA--GGPPELRTGIDLPPQGF-----KPAGRVEETGRRLEKYCKRFSV	458
G644_At	FQWPTLIHRFSMYG---SPKVRTIGIEFFPQGF-----RPAQRVEETGQRLAAYAKLFGV	514
G3823_Os	FQWPCLIQRLAKRE--GGPPKLRTGVDVPQPGF-----RPHERIEETGKRLAEYANMFNV	428
G3820_Os	FQWP SLIQRLANEE--GGPPKLRTGIDMPQPGF-----HPCEIIEETGKRLADYANLFKV	529
G1768_At	SQWIALIQAFARP--GGAPNIRITGVGD-----GSVLVTVKRLEKLAKKFDV	215
G3815_Os	SQWMTLIQALARP--GGPPFLRTGIDDSNSAY-----ARGGGLDIVGMRLYKVAQSFGI	326
G3825_Le	TQWMTLLQALARP--GGAPYVRTGIDDDPSVQY-----ARGDGLAAVARRLSAISEEFNI	360
G852_At	NQYMTLIRSIAELP--GKRPRLRTGIDDDPESVQ-----RSIGGLRIIGLRLEQLAEDNGV	394
G3819_Os	HQWRGLLDGLAARAS--GKPARVRTGVGARMD-----TMRAIGRELEAYAEGLGM	336
G1767_At	TQWPTLLEALATRS--DDTPHLRLTTVVVANKFVNDQTASHRMMKEIGNRMEKFARLLMGV	324

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FIGURE 19L

G3810_Gm	PFQFN--PVASKLENLDFDKLR-----VKTGEALAISSILQLHTLLAWDDAMQKSP	246
G3811_Gm	PFQFN--PVLSKLENLDFNKLRL-----VKTGEALAISSIMQLHSLLLALDEDAARRKSP	243
G3824_Le	PFQFN--QVVSRLLENLDVEKLR-----VKTGEALAISSIMQLHTLLAHDNDK---KSP	179
G922_At	PFQFN--PVSRLDCLNVEQLR-----VKTGEALAVSSVLQLHTFLASDDDLMRKNCA	274
G3812_Gm	PLQFY--PVVSKLEDVDFEKLPL-----VKIGDALAISSVLQLHSLLLATDDDMAGRISP	241
G3814_Os	AFQFN--AVEAKLDEMDFDALRHDLG---VRSGEALAVSVVLQLHRLLLAVDDGR--RHAA	267
G3813_Os	PFQFN--PVVSRLDALDVESLRV-----KTGEALAISSSLQLHCLLASDDDA-----	263
G3827_Os	PFQFN--PVVSRLDALDVESLR-----	231
G306_At	PFEFC--PLAEKVGNLDTERLN-----VRKREAVAVHWLQHSLYDVTGSDAH-----	504
G3821_Ps	PFEFF--PVAEKVGNIDVEKLN-----VSKSEAVAVHWLQHSLYDVTGSDTN-----	660
G3822_Zm	PFEFC--AVA EKAGNVDPEKLG-----VTRREAVAVHWLHHSLYDVTGSDSN-----	514
G2738_At	EFEFKG-LAAESLSDLEPEMFETRPE----SETLVNSVFELHRLLLARSG-----	393
G3009_At	EFKFNG-LTTERLSLDEPDMFETRTE----SETLVNSVFELHPVLSQPG-----	364
G307_At	EFEYRG-FVANSLADLDASMLELRPSD----TEAVAVNSVFELHKLGRPG-----	431
G308_At	EFEYRG-FVANTLADLDASMLELRPSE----IESVAVNSVFELHKLGRPG-----	378
G309_At	NFEFKS-IALNNLSDLKPEMLDIRPG-----LESVAVNSVFELHRLLAHPG-----	357
G3816_Ta	DFQYRG-LVAATLADLEPFMLQPEGEEDPNEEPEVIAVNSVFEMHRLLAQPG-----	451
G3817_Os	DFQYRG-LVAATLADLEPFMLQPEGEADANEEPEVIAVNSVFELHRLLAQPG-----	457
G3818_Gm	RFAFRG-VAAWRLEDVKPWMLQVNPVN-----EAVAVNSIMQLHRLLASDSDPI-----	340
G3010_At	RLSTT--QLLRNGETIQVEDLKLRL-----QGEYVVVNSLFRFRNLLDETVLVN-----	612
G3826_Le	PFVFK--AIAKKWESITLEELEVQ-----RDEVLVVNSLYRLGNIPDETVPVN-----	504
G644_At	PFEYK--AIAKKWDAIQLEDLDID-----RDEITVVNCLYRAENLHDESVKVE-----	560
G3823_Os	PFQYH--GIASRWETICIEDLSID-----KDEVLIINCMRMRKLGDETENID-----	474
G3820_Os	PFQYQ--GIASRWETVQIEDLNID-----KDEVLIINCMFRMKNLGDENVSMN-----	575
G1768_At	PFRFN--AVSRPSCEVEVENLDVR-----DGEALGVNFAYMLHHLPDSEVSME-----	261
G3815_Os	PFEFN--AVPAASHEVYLEHLDIR-----VGEVIVVNFAYQLHHTPDSEVSTE-----	372
G3825_Le	AVEFH--AVPVFAPEITWDMLDVR-----PGEALAVNFPLQLHHTPDSEVDVN-----	406
G852_At	SFKFK--AMPSKTSIVSPSTLGCK-----PGETLIVNFAPQLHHMPDESVTTV-----	440
G3819_Os	YLEFR--GINRGLESLEHIDDLGVD-----ADEAVAINSVLELHSHVVKESRGALN-----	383
G1767_At	PFKFNI IHHVGDLSEFDLNELDVK-----PDEVLAINCVMGHGIASRGS-----	369

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FIGURE 19M

G3810_Gm	LLLKSS-NGIHLQRVLPMGQSTLGDLLLEKDMVN-----GYTPSPDSTSSSPSSLT	295
G3811_Gm	LLSKNS-NAIHLQKGLLMNHTTLGDLLD-----GYSPSPDSASSSPAASS	287
G3824_Le	LPFKHS-NGVNLNRALVN-QNTLGEFLEKDMAN-----GCSPSNDTASSSPLCST	227
G922_At	LRFQNNPSGVDLQRVLMMSHGSAEARENDMSNNN-----GYSPSGDSASSPLPSS	326
G3812_Gm	AAAASM-----NVQRALHMGQRTFAEWLERDMIN-----AYTISPDSALS-PLSLG	286
G3814_Os	AGCLTP-----VQIIARSSPRSFCELLERELNTRLQLSPDASVVSSLSHPSPAAATAAHP	322
G3813_Os	-----AAVAGGDKERRSPESGL	280
G3827_Os	-----	
G306_At	-----	
G3821_Ps	-----	
G3822_Zm	-----	
G2738_At	-----	
G3009_At	-----	
G307_At	-----	
G308_At	-----	
G309_At	-----	
G3816_Ta	-----	
G3817_Os	-----	
G3818_Gm	-----	
G3010_At	-----	
G3826_Le	-----	
G644_At	-----	
G3823_Os	-----	
G3820_Os	-----	
G1768_At	-----	
G3815_Os	-----	
G3825_Le	-----	
G852_At	-----	
G3819_Os	-----	
G1767_At	-----	

FIGURE 19N

G3810_Gm	TSNSRPRGRFLNALWGLSPKVMVVTEQDCNHNGP-----TLMDRLLEALYSYAALFDC	348
G3811_Gm	SALMNSES-FLNALWGLSPKVMVVTEQDFHNCL-----TMMERLAEALFSYAAYFDC	339
G3824_Le	GS-TKMDS-FLNALWGLSPKVMVVTEQDANHNGT-----TLMERLSESLHFYAALFDC	278
G922_At	GR---TDS-FLNAIWGLSPKVMVVTEQSDHNGS-----TLMERLLESLYTYAALFDC	375
G3812_Gm	AS--PKMGIFLNAIRKLQPKLVITEQESNLNGS-----NLMERVDRALYFYSALFDC	337
G3814_Os	TTSTPKLGSFLSAVRSLSPKIMVMTEQEANHNGG-----AFQERFDEALNYYASLFDC	375
G3813_Os	SPSTSRADAFGLALWGLSPKVMVVAEQEAASHNAA-----GLTERFVEALNYYAALFDC	333
G3827_Os	-----GLSLKVMVVTEQEVSHNAA-----GLTERFVEALNYYAALFDC	269
G306_At	-----TLWLLQRLAPKVVTVVEQDLSHAG-----SFLGRFVEAIHYYSALFDS	547
G3821_Ps	-----TLWLLQRLAPKVVTVVEQDLSNAG-----SFLGRFVEAIHYYSALFDS	703
G3822_Zm	-----TLWLIQRLAPKVVTVVEQDLSHSG-----SFLARFVEAIHYYSALFDS	557
G2738_At	-----SIEKLLNTVKAIKPSIVTVVEQEANHNGI-----VFLDRFNEALHYYSSLFDS	441
G3009_At	-----SIEKLLATVKAVKPGLVTVVEQEANHNGD-----VFLDRFNEALHYYSSLFDS	412
G307_At	-----GIEKVLGVVKQIKPVIFTVVEQESNHNGP-----VFLDRFTESLHYYSTLFS	479
G308_At	-----AIDKVLGVNQIKPEIFTVVEQESNHNSP-----IFLDRFTESLHYYSTLFS	426
G309_At	-----SIDKFLSTIKSIRPDIMTVVEQEANHNGT-----VFLDRFTESLHYYSSLFDS	405
G3816-Ta	-----ALEKVLGTVRAVRPRIVTVVEQEANHNSG-----TFLDRFTESLHYYSTMFS	499
G3817_Os	-----ALEKVLGTVHVRPRIVTVVEQEANHNSG-----SFLDRFTESLHYYSTMFS	505
G3818_Gm	-----GSGIETVLGWIRSLNPKIISVVEQEANHNGD-----RFLERFTEALHYYSTVFS	390
G3010_At	-----SPRDAVLKLIRKINPNVFIPAILSGVYNAP-----FFVTRFREALFHYSAVFD	661
G3826_Le	-----SPRDAVLNLIRRPDLFIHGALNGTFNTP-----FFVTRFREALFHFSSLYDM	553
G644_At	-----SCRDTVLNLIGKINPDLFVFGIVNGAYNAP-----FFVTRFREALFHFSSIFDM	609
G3823_Os	-----SARDRVLHMMKRMNPQVFI LGVNGLYSSP-----FFLTRFREVLPHYSSLFDM	523
G3820_Os	-----SARDRVLKMIRMMNPRVFILGIVNGSYSSP-----FFITRFEVLPHYSSLFDM	624
G1768_At	-----NHRDRLRMVKSLSPKVVTVLVEQECNTNTS-----PFLPRFLETLSYYTAMFES	310
G3815_Os	-----NHRDRILRMVKSLSPRLVTVLVEQESNTNTR-----PPFPRYLETLDYYTAMFES	421
G3825_Le	-----NPRDGLIRMIKSLSPKIVTVLVEQESNTNTA-----PFLPRFVEALDYYHAMFES	455
G852_At	-----NQDELHLMVKSLNPKLVTVVEQDVNTNTS-----PPFPRIEAYEYYSVAVFES	489
G3819_Os	-----SVLQTIRKLSPRAFLVVEQDAGHNGP-----FFLGRFMEALHYYAALFDA	428
G1767_At	-----PRDAVISSFRRLRPRIVTVVEEEADLVGEEEGGDDDEFGRGFGECLRWFRVCFES	424

: MV : :C

FIGURE 190

G3810_Gm	LEST-----VSRTSLERLRVEKMLFGEEIKNIACE-GSERKERHEKLEK	392
G3811_Gm	LEST-----VSRASMDRLKLEKMLFGEEIKNIACE-GCKERKERHEKMDR	383
G3824_Le	LEST-----LPRTSLERLKVEMKMLLGGEEIRNIACE-GIERKERHEKLEK	322
G922_At	LETK-----VPRTSQDRIKVEKMLFGEEIKNIISCE-GFERRERHEKLEK	419
G3812_Gm	LDST-----VMKTSVERQKLESKLLGEOIKNIACE-GVDRKERHEKLEK	381
G3814_Os	LQRS-----AAAAA-ERARVERVLLGEEIRGVVACE-GAERVERHERARQ	418
G3813_Os	LEVG-----AAGSVERARVERWLLGEEIKNIVACD-GGERRERHERLER	377
G3827_Os	LEVG-----GARGSVERTRVERWLLGEEIKNIVACD-GGERRERHER--	310
G306_At	LGAS-----YGESEERHVVEQQLLSKEIRNVAVG-GPSR-SGEVKFES	590
G3821_Ps	LGSS-----YGESEERHVVEQQLLSREIRNVAVG-GPSR-SGEIKFHN	746
G3822_Zm	LDAS-----YGEDSPERHVVEQQLLSREIRNVAVG-GPAR-TGDVKFGS	600
G2738_At	LED-----SYSLPSQDRVMSEVYLGRQILNVAAE-GSDRVERHETAAQ	484
G3009_At	LED-----GVVIPSQDRVMSEVYLGRQILNLVATE-GSDRIERHETLAQ	455
G307_At	LE-----GVPNSQDKVMSEVYLGKQICNLVACE-GPDRVERHETLSQ	520
G308_At	LE-----GVPSSQDKVMSEVYLGKQICNVVACD-GPDRVERHETLSQ	467
G309_At	LE-----GPP-SQDRVMSELFLGRQILNLVACE-GEDRVERHETLNQ	445
G3816-Ta	LEGGSSGGPSEVSSGAAAAAAGTDQVMSEVYLGRQICNVVACE-GAERTERHETLGQ	558
G3817_Os	LEGGSSG--QAELSP--PAAGGGGTDQVMSEVYLGRQICNVVACE-GAERTERHETLGQ	560
G3818_Gm	LEA-----CPVEPKALAEMLQREICNVVSSE-GPARVERHEPLAK	431
G3010_At	CDSK-----LAREDEMRLMYEKEFFYGREIVNVVACE-GTERVERPETYKQ	705
G3826_Le	FEAT-----LPREDEDRKLFEEEVFARDAMNVIACE-GTERVERPETYKQ	597
G644_At	LETI-----VPREDEERMFLMEVFGREALNVIACE-GWERVERPETYKQ	653
G3823_Os	LDNN-----VPRNHEARILVEKDLFGNDALNAVACE-GAERIERPESYKQ	567
G3820_Os	IDAN-----VPRDNEARKMIEGGLFGQEALNIIACE-GAERTERPESYKQ	668
G1768_At	IDVM-----LPRNHKERINIEQHCHMARDVVNIACE-GAERIERHELIGK	354
G3815_Os	IDVA-----LPRDDKRRMSAEQHCVARDIVNLIACE-GAERVERHEVFGK	465
G3825_Le	IDVT-----LLRDMKERINVEQHCHCLARDIVNVIACE-GKERVERHELIGK	499
G852_At	LDMT-----LPRESQERMNVVERQCLARDIVNIVACE-GEERIERYEAAAGK	533
G3819_Os	LDA--LPDYDARRARVEQHFHFGAEIRNVVVGCE-GAARVERHERADQ	472
G1767_At	WEES-----FPRTSNERLMLER-AAGRAIVDLVACE-PSDSTERRETARK	467

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FIGURE 19P

G3810_Gm	WFQFDLAGFQNVPLSYFGMVQARRFLQSYGCEG-YRMRDENG--CVLICWEDRPMYSIS	449
G3811_Gm	WIQRDLDSGFANVPISYYGMLQRRRFLQTYGCEG-YKMRREECG--RVMICWQERSLFSIT	440
G3824_Le	WFQFDTSFGFQNVPLSYIAMLQARRLLQSYSCG-YKIKEDNG--CVVICWQDRPLFSVS	379
G922_At	WSQRIDLAFGQNVPLSYIAMLQARRLLQCGGFDG-YRIKEESG--CAVICWQDRPLYSVS	476
G3812_Gm	WIRRLMAGFEKVPPLSYNGRLEAKNLLQYSNK--YKFREEND--CLLVCWSDRPLFSRA	437
G3814_Os	WAARMEAGMERVGLSYSGAMEARKLLQSCGWAGPYEVHRDAGHGFFFCWHKRPLIYAVT	478
G3813_Os	WARRLEGAGFRVPLSYYALLQARRVAQGLGCDG-FKVRREEKG--NFFLCWQDRALFSVS	434
G3827_Os	-----LEGAGFRVPLSYYALLQARRVAQGLGCDG-FKVRREEKG--NFFLCWQDRALFSVS	363
G306_At	WREKMQCCGFKGISLAGNAATQATLLLGMPFSDG-YTLVDDNG--TLKLGWKDLSLLTAS	647
G3821_Ps	WREKLQCCGFRGVSLAGNAATQASLLLGMPFSEG-YTLVEDNG--ILKLGWKDLCLLTAS	803
G3822_Zm	WREKLAQSGFRAASLAGSAAQAASLLLGMPFSDG-YTLVEENG--ALKLGWKDLCLLTAS	657
G2738_At	WRIRMSAGFDPPIHLGSSAFKQASMLLSLYATGDGYRVEENDG--CLMIGWQTRPLITTS	542
G3009_At	WRKRMGSAGFDPVNLGSDAFKQASLLLALSGGGDGYRVEENDG--SLMLAWQTKPLIAAS	513
G307_At	WGNRFGSSGLAPAHLGSAFAFKQASMLLSVFNQSGQGYRVEESNG--CLMLGWHTRPLIATS	578
G308_At	WRNRFSGAGFAAAHIGSNAPFKQASMLLALFNQGGEGYRVEESDG--CLMLGWHTRPLIATS	525
G309_At	WRNRFGLGGFKPVSIGSNAYKQASMLLALYAGADGYNVEENEG--CILLGWQTRPLIATS	503
G3816_Ta	WRNRLGNAGFETVHLGSAFAYKQASTLLALFAGGDKYKVEEKEG--CLTLGWHTRPLIATS	616
G3817_Os	WRNRLGRAGFEPVHLGSAFAYKQASTLLALFAGGDKYRVEEKEG--CLTLGWHTRPLIATS	618
G3818_Gm	WRERLEKAGFKPLHLGSAFAYKQASMLLTLLFS-AEGYSVEENQG--CLTLGWHSRPLIAAS	488
G3010_At	WQARLIRAGFRQLPLEKELMQNLKLIENGYD-KNFDVDQNGN--WLLQGWKGRIVYASS	762
G3826_Le	WQLRCVRAQFKQVPLDQEIIVKIVRNKVRSEYH-RDFSVDDEDGH--WMLQGWKGRVIYALS	654
G644_At	WHVVRAMRSGLVQVPFDPSPIMKTSLHKVHTFYH-KDFVIDQDNR--WLLQGWKGRITVMALS	710
G3823_Os	WQMRILRAGFKQRPVNQAILNRSVHYKE-FYH-EDFVIDEDSG--WLLQGWKGRITVIALS	623
G3820_Os	WQARCLKAGFKQLPVDPATLKEIINMKKGIYH-EDFVADEDGA--WLLQGWKGRVIYALS	725
G1768_At	WKSFRSMAGFEPYPPLS-SIISATIRALLRD-YSNGYAIIEERDG--ALYLGWMDRILVSSC	410
G3815_Os	WKARLTMAQFRPYPLS-SVNSTIKTLLHT-YNSFYRLEERDG--VLYLGWKNRVLVSVS	521
G3825_Le	WKSFRMMAGFQQYPLS-SYVNSVIKDLMKR-YSEHYTLVEKDG--AMLLGWKERNLVSAS	555
G852_At	WRARMMMAGFNPKPMS-AKVNTNNIQNLIKQQYCNKYKLKEEMG--ELHFCWEEKSLIVAS	590
G3819_Os	WRRRMSRAGFQSVPIKMAAKAR--EWLDENAGGGYTVAAEEKG--CLVLGWKGPVIAAS	528
G1767_At	WSRRMRNSGFGAVGYSDEVADDVRALLRRYKEGVWSMVQCPDAA-GIFLCWRDQPVVWAS	526

: SY RR Q C :

FIGURE 19Q

G3810_Gm	AWRSRK-----	455
G3811_Gm	AWRPRK-----	446
G3824_Le	SWRCRK-----	385
G922_At	AWRCRK-----	482
G3812_Gm	EF-----	439
G3814_Os	AWRPAASRRGHTLH-----GRRSEGTRESVPWPPR-----	508
G3813_Os	AWRGRRFD-----	442
G3827_Os	AWGRRRFAALLPLPPSTPLPCSRVIATLLSSPPPPCSPLHPYCERRRMKGEKKGKRE-	422
G306_At	AWTPRS-----	653
G3821_Ps	AWRPPYHTNTIIPHNN-----	819
G3822_Zm	AWRPIQVPPCR-----	668
G2738_At	AWKLA-----	547
G3009_At	AWKLAELRR-----	523
G307_At	AWKLSTAAH-----	587
G308_At	AWKLSTN-----	532
G309_At	AWRINRVE-----	511
G3816_Ta	AWRLAGP-----	623
G3817_Os	AWRVAAA-----	625
G3818_Gm	AWQAAPMQDRETLRFEQ-----	505
G3010_At	LWVP-----SSS-----	769
G3826_Le	CWKP-----TKQSVKLV-----	666
G644_At	VWKP-----ESKA-----	718
G3823_Os	TWKV-----ET-----	629
G3820_Os	TWKP-----NESYLDQ-----	736
G1768_At	AWK-----	413
G3815_Os	AWC-----	524
G3825_Le	AWF-----	558
G852_At	AWR-----	593
G3819_Os	CWKC-----	532
G1767_At	AWRPT-----	531

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FIGURE 19R

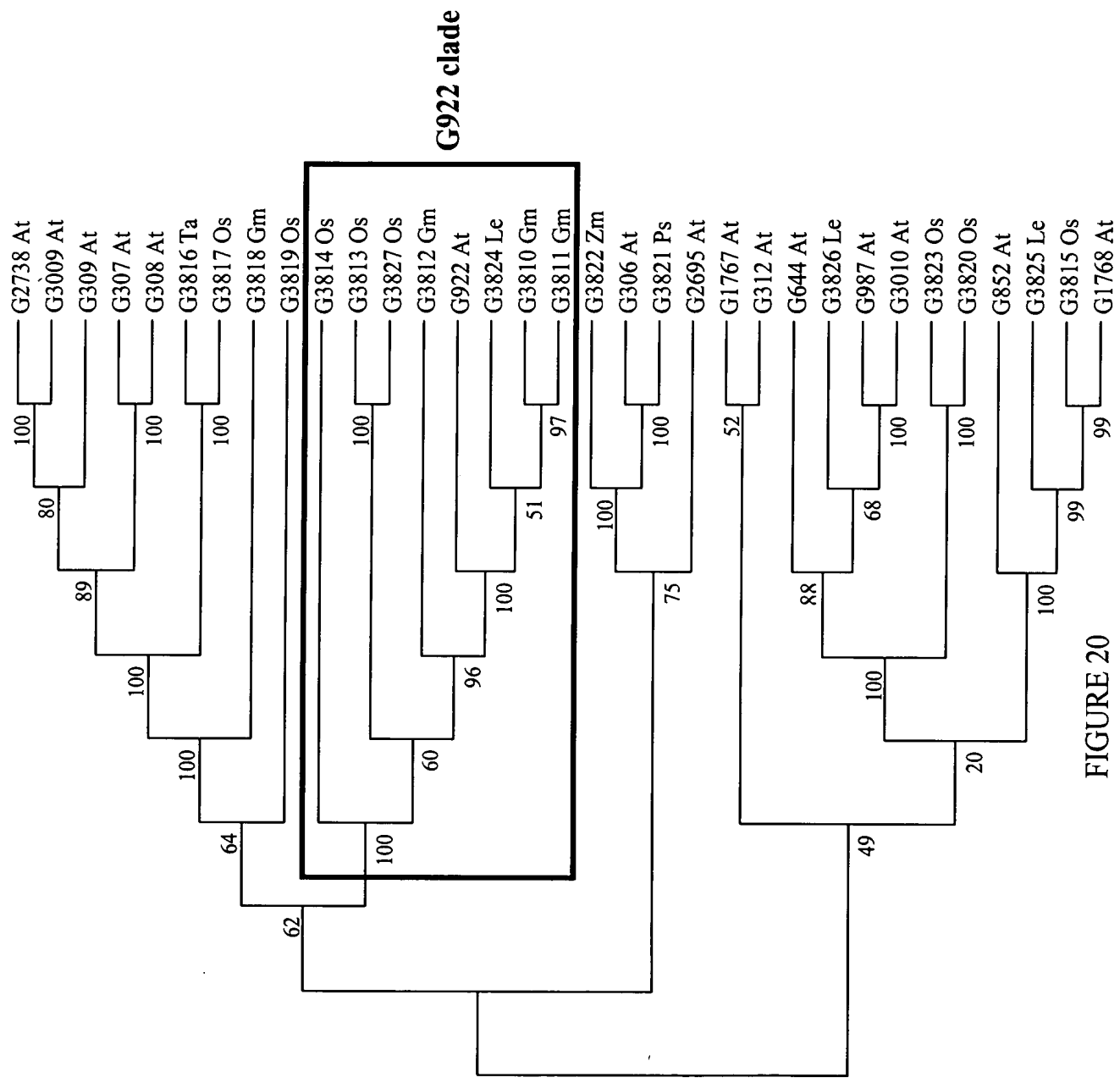


FIGURE 20

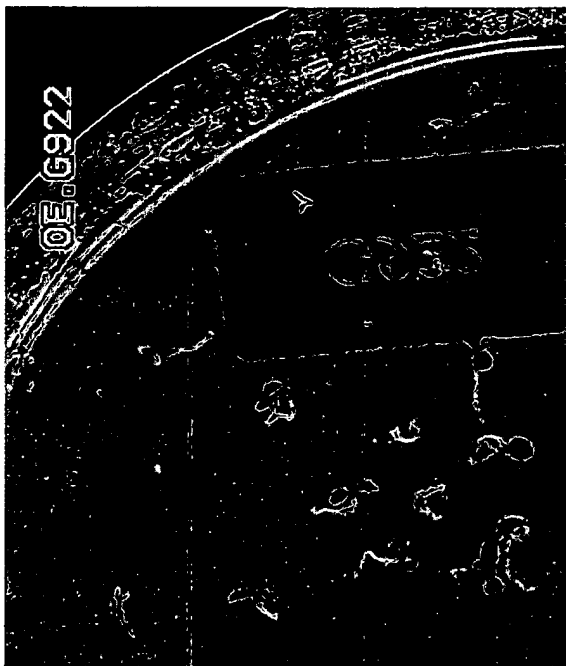


FIGURE 21A

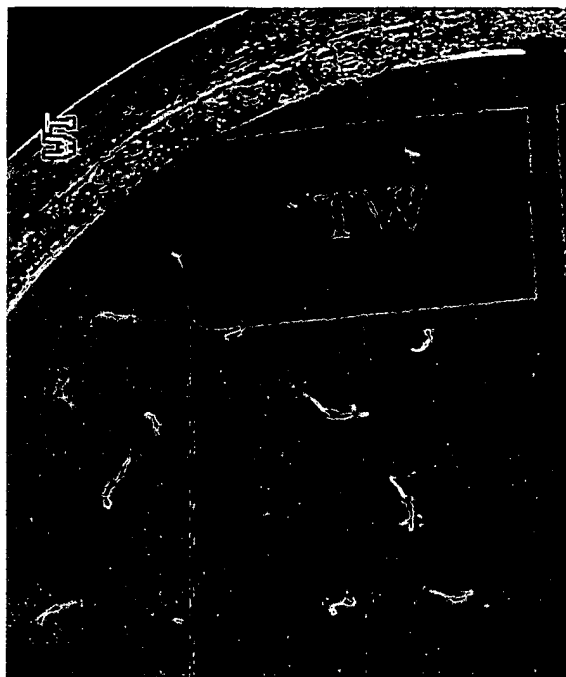


FIGURE 21B



FIGURE 21C



FIGURE 21D

G3728_Z_mays		
G3804_Z_mays		
G3802_S_bicolor		
G3727_Z_mays		
G3721_O_sativa		
G3730_O_sativa		
G3719_Z_mays		
G3725_O_sativa		M A A A A
G3722_Z_mays		
G3733_H_vulgare		M A A V G
G3726_O_sativa		M A A V G
G3720_Z_mays		M A A V G
G3729_O_sativa	M S S L Y P S L L S L	
G3797_L_sativa		
G3795_C_anuum		
G1275_A_thaliana		
G1274_A_thaliana		
G1758_A_thaliana		
G3732_S_tuberosum		
G3731_L_esculentum		
G3724_G_max		
G3723_G_max		
G3803_G_max		
G194_A_thaliana	M E F T D F S K T S F Y Y P S S Q -	
G2517_A_thaliana	M E N V G V G M P F Y D L G Q T R V Y P L L S - -	
G179_A_thaliana		
G2688_A_thaliana		
G1956_A_thaliana	M G A I N Q G I S L F D E S Q T V I N P I N T N	
G181_A_thaliana		
G1931_A_thaliana		
G1012_A_thaliana		
G1420_A_thaliana	M E K K K E E D H H H Q Q Q Q Q Q Q K E I K N T	
G2290_A_thaliana	M N - - - D P D N P D - - - - - - - - L S N -	
G2575_A_thaliana	M D D H V E H N Y N T S L E E V H F K - -	
G195_A_thaliana	M S H E I K D L N N Y H Y T S S Y N H Y N I N N Q	
G187_A_thaliana	M S N E T R D L Y N Y Q Y P S S F S L H E M M N L	
G1013_A_thaliana		

FIGURE 22A

	30	40	50
G3728_Z_mays			M A T
G3804_Z_mays			M A T
G3802_S_bicolor			M Q M A A
G3727_Z_mays			M A A
G3721_O_sativa			M A A
G3730_O_sativa		M A A S L G L C H	
G3719_Z_mays			M A
G3725_O_sativa	A G A S T P F N F C R H G S H A E Y D A V F S G S		
G3722_Z_mays		M H M A L S S R S S F A	
G3733_H_vulgare	A A P V L Y Q Q Q - - - - A Q A V G D A C F F S S		
G3726_O_sativa	A H A A V Y H H P V S G L S A P A G D A A Y - - S		
G3720_Z_mays	A H P V L Y H H P - - - - - A P A G D A S - - - S		
G3729_O_sativa	S - - - - - - - - - - - E S P A E Y R Q V G G		
G3797_L_sativa		M N Y Y D H Q M S K A	
G3795_C_anuum			M L D
G1275_A_thaliana		M N D A D T N L G	
G1274_A_thaliana			M N I
G1758_A_thaliana			M N Y
G3732_S_tuberosum		M E N F P Y S	
G3731_L_esculentum		M E N F P Y S	
G3724_G_max		M D F Y F G	
G3723_G_max		M D Y Y F G	
G3803_G_max		M D Y Y F G	
G194_A_thaliana	- - - - - - - - - - - S V W D F G D L A A A		
G2517_A_thaliana	- - - - - - - - - - - - - D F H D L S A -		
G179_A_thaliana			
G2688_A_thaliana			
G1956_A_thaliana	H L G F F F S F P S H S T L S S S S S S S S S S P		
G181_A_thaliana			M
G1931_A_thaliana			M E
G1012_A_thaliana			
G1420_A_thaliana	E T K I - - - - - - - - E Q E Q E Q E Q K Q E I S		
G2290_A_thaliana	- - - - - - - - - - - - - D D S A W R E L T		
G2575_A_thaliana	- - - - - - - - - - - - - S L S D - - - -		
G195_A_thaliana	N M I N L P Y V S G P S A Y N A N M I S S S Q V G		
G187_A_thaliana	P T S N P S S Y G N L P S Q N G F N P S T Y S F T		
G1013_A_thaliana		M E E E G Y Q W A	

FIGURE 22B

	60	70
G3728_Z_mays	S L G L N P E D L F T S	- - - - - - - - - -
G3804_Z_mays	S L G L N P E D L F T S	- - - - - - - - - -
G3802_S_bicolor	S L G L N P E A L F A S	- - - - - - - - - -
G3727_Z_mays	S L G L N P E A V F T S	- - - - - - - - - -
G3721_O_sativa	S V G L N P E A F F F S	- - - - - - - - - -
G3730_O_sativa	E T S Y A Y S Y P A S N	- - - - - - - - - -
G3719_Z_mays	D D Y F Q F G F T G Q E	- - - - - - - - - -
G3725_O_sativa	W M A R R P S A A P H G	- - - - - - - - - -
G3722_Z_mays	A D V L L P A T M S Y R	- - - - - - - - - -
G3733_H_vulgare	M S S Y F S N E A I S S	- - - - - - - - - -
G3726_O_sativa	M S S Y F S H G G - S -	- - - - - - - - - -
G3720_Z_mays	M S S Y F S H G G - S S	- - - - - - - - - -
G3729_O_sativa	G R Y A G E D V V D D D	- - - - - - - - - -
G3797_L_sativa	Y S Y R S V D S P D M D	- - - - - - - - - -
G3795_C_anuum	G S F R S L D S P D S D	- - - - - - - - - -
G1275_A_thaliana	S S F S D D T H S V F E F P	- - - - - - - - - -
G1274_A_thaliana	S Q N P S P N F T Y F S D E	- - - - - - - - - -
G1758_A_thaliana	P S N P N P S S T D F T	- - - - - - - - - -
G3732_S_tuberosum	S S N P N P N - - - - -	- - - - - - - - - -
G3731_L_esculentum	S S N P N P N - - - - -	- - - - - - - - - -
G3724_G_max	N S P P Y P N - N Y A H	- - - - - - - - - -
G3723_G_max	N L N P N P Y - Y H H S	- - - - - - - - - -
G3803_G_max	N P N P K P Y D N R H S	- - - - - - - - - -
G194_A_thaliana	E R H S L G F M E L L S	- - - - - - - - - -
G2517_A_thaliana	E R Y P V G F M D L L G	- - - - - - - - - -
G179_A_thaliana	M E D R	- - - - - - - - - -
G2688_A_thaliana	M E G Y D	- - - - - - - - - -
G1956_A_thaliana	S S L V S P F L G H N S	L N S F L H N - - - -
G181_A_thaliana	D R E D I N P M L S R L	- - - - - - - - - -
G1931_A_thaliana	G V D N T N P M L T L E	- - - - - - - - - -
G1012_A_thaliana		
G1420_A_thaliana	Q A S S S S N M A N L V T S	S S D H H P L E L A G N
G2290_A_thaliana	L T A Q D S D F F D R	- - - - - - - - - -
G2575_A_thaliana	- C L Q S S L V M D Y N	- - - - - - - - - -
G195_A_thaliana	F D L P S K N L S P Q G	- - - - - - - - - -
G187_A_thaliana	D C L Q S S P A A Y E S	- - - - - - - - - -
G1013_A_thaliana	R R C G N N A V E D P F	- - - - - - - - - -

FIGURE 22C

	80										90										100									
G3728_Z_mays	-	-	-	-	Y	S	S	S	Y	Y	S	S	P	P	F	M	S	D	Y	A	A	S	F	T	P					
G3804_Z_mays	-	-	-	-	Y	S	S	S	Y	Y	S	S	P	P	F	M	S	D	Y	A	A	S	F	T	P					
G3802_S_bicolor	-	-	-	-	Y	S	S	A	Y	S	S	S	P	F	V	S	D	Y	A	A	S	F	P	A						
G3727_Z_mays	-	-	-	-	Y	T	S	S	P	-	-	P	F	M	S	D	Y	V	A	A	S	F	L	P	P					
G3721_O_sativa	-	-	-	-	N	S	Y	S	Y	S	-	S	S	P	F	M	A	S	Y	T	P	E	F	S	A					
G3730_O_sativa	-	-	-	-	T	S	S	S	L	C	F	P	P	L	M	A	D	H	I	V	D	G	-	-	-					
G3719_Z_mays	-	-	-	-	M	V	A	D	D	C	S	A	P	V	F	A	N	S	S	S	D	A	V	T	A					
G3725_O_sativa	-	-	-	-	G	G	A	S	G	S	G	S	G	S	G	-	Y	G	A	A	S	Y	V	A	P					
G3722_Z_mays	-	-	-	-	Q	P	C	S	G	A	S	S	Y	L	G	S	Q	P	A	A	P	F	P	S	A					
G3733_H_vulgare	-	-	-	-	S	C	S	S	P	A	S	S	F	S	A	A	L	G	A	T	P	P	A	A	P					
G3726_O_sativa	-	-	-	-	S	T	S	S	S	A	S	S	F	S	A	A	L	A	A	A	T	T	P	P	L					
G3720_Z_mays	-	-	-	-	T	T	S	S	S	A	S	S	F	T	A	A	L	A	P	T	T	T	A	L	A					
G3729_O_sativa	-	-	-	-	D	D	M	A	A	V	A	D	A	V	S	S	Y	L	S	F	D	M	D	D	V					
G3797_L_sativa	-	-	-	-	Y	D	V	P	N	Q	Q	T	Y	E	F	V	E	S	F	L	S	F	D	D	W					
G3795_C_anuum	-	-	-	-	-	D	F	S	N	H	L	I	N	F	E	L	S	D	I	L	E	I	D	N	W					
G1275_A_thaliana	-	-	-	-	E	L	D	L	S	D	E	W	M	D	D	D	L	V	S	A	V	S	G	M	N	Q				
G1274_A_thaliana	-	-	-	-	N	F	I	N	P	F	M	D	N	N	D	F	S	N	L	M	F	F	D	I	D	E				
G1758_A_thaliana	-	-	-	-	-	-	E	F	F	K	F	D	D	F	D	D	T	F	E	K	I	M	E	E	I					
G3732_S_tuberosum	-	-	-	-	F	I	D	A	-	S	E	N	F	E	L	S	D	Y	N	Y	L	F	L	D	D					
G3731_L_esculentum	-	-	-	-	F	I	D	A	-	S	E	N	F	E	L	S	D	Y	N	Y	L	F	L	D	D					
G3724_G_max	-	-	-	-	N	S	L	N	M	A	L	S	S	P	E	I	A	L	S	D	Y	L	M	L	D	D				
G3723_G_max	-	-	-	-	A	V	V	N	M	A	S	P	S	S	E	F	M	L	S	D	Y	L	V	L	E	D				
G3803_G_max	-	-	-	-	A	V	V	N	T	E	S	P	S	S	E	F	M	L	S	D	Y	L	V	L	E	D				
G194_A_thaliana	-	-	-	-	-	-	-	-	S	Q	Q	H	Q	D	F	A	T	V	S	P	H	S	F	L	L	Q				
G2517_A_thaliana	-	-	-	-	-	-	-	-	V	H	R	H	T	P	T	H	T	P	-	-	-	-	-	-	-	-				
G179_A_thaliana	-	-	-	-	-	-	-	-	R	C	D	V	L	F	P	C	S	S	S	V	D	P	R	L	T	E	F			
G2688_A_thaliana	-	-	-	-	-	-	-	-	N	G	S	L	Y	A	P	F	L	S	L	K	S	H	S	K	P	E	L			
G1956_A_thaliana	-	-	-	-	-	N	P	S	S	F	I	S	H	P	Q	D	S	I	N	L	M	T	N	L	P	E				
G181_A_thaliana	-	-	-	-	-	-	-	-	D	V	E	N	N	N	T	F	S	S	F	V	D	K	T	L	M	M	M			
G1931_A_thaliana	-	-	-	-	-	-	-	-	E	G	E	N	N	N	P	F	S	S	L	D	D	K	T	L	M	M	M			
G1012_A_thaliana																														
G1420_A_thaliana	L	S	S	I	F	D	T	S	S	L	P	F	P	Y	S	Y	F	E	D	H	S	S	N	N	P					
G2290_A_thaliana	-	-	-	-	-	D	T	S	N	I	L	S	D	F	G	W	N	L	H	H	S	S	D	H	P					
G2575_A_thaliana	-	-	-	-	S	L	E	K	V	F	K	F	S	P	Y	S	S	P	F	Q	S	V	S	P	S	V				
G195_A_thaliana	-	-	-	-	A	F	E	L	G	F	E	L	S	P	S	S	S	D	F	F	N	P	S	L	D	Q				
G187_A_thaliana	-	-	-	-	L	L	Q	K	T	F	G	L	S	P	S	S	S	E	V	F	N	S	S	I	D	Q				
G1013_A_thaliana	-	-	-	-	V	Y	E	P	P	L	F	F	L	P	Q	D	Q	H	H	M	H	G	L	M	P	N				

FIGURE 22D

		110										120																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
G3728_Z_mays	A	A	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	130	140	150
G3728_Z_mays	- - - - -	- D S T A F S S E	L D D L
G3804_Z_mays	- - - - -	- D S T A F S S E	L D N L
G3802_S_bicolor	- - - - -	- S A T A F S A E	L D D L
G3727_Z_mays	- - - - -	- D S T D F S A E	L D D L
G3721_O_sativa	- - - - -	- D A N L F S G E	L D F D
G3730_O_sativa	- - - - -	- G G C S F G E F	L E L G
G3719_Z_mays	- - - - -	- N G M S L L S Y	G V D G
G3725_O_sativa	- - - - -	- R Q Q H L D L L D Y	L S D D
G3722_Z_mays	- - - - -	- A Q L D V F D C	L S S D
G3733_H_vulgare	- - - - -	- P A S Q F D I S E Y	L Y G D
G3726_O_sativa	- - - - -	- G S Q F D I S E F	F F D D
G3720_Z_mays	- - - - -	- E H F D I S E F	L F D D
G3729_O_sativa	- - - - -	- T P E V G F H S K Q H N P	
G3797_L_sativa	- - - - -	- D K A S T V P E Y Q D H	
G3795_C_annuum	- - - - -	- Q D P T L I P Q Y S N Y	
G1275_A_thaliana	- - - - -	- Q T S D V A G A	L F S G
G1274_A_thaliana	- - - - -	- N G L I E E E	I S S P
G1758_A_thaliana	- - - - -	- D H S S S P T	L S W S
G3732_S_tuberosum	- - - - -	- - - - - D D F L S Q	
G3731_L_esculentum	- - - - -	- - - - - D D F L S Q	
G3724_G_max	- - - - -	- H Q - D S R S S Q S T E	
G3723_G_max	- - - - -	- H H Q E S W S Q S T E T E	
G3803_G_max	- - - - -	- N Q E S W S Q S T E T E	
G194_A_thaliana	Q L V T S K V E S L C S D H L L I N P P A T P N S		
G2517_A_thaliana	- - - - -	- L M H F P T T P N S	
G179_A_thaliana	- - - - -	- - - - - G	V D N S
G2688_A_thaliana	- - - - -	- - - - - G	E E E S
G1956_A_thaliana	S K Q R D D H D G F L N L D H H R L T G S		I S S Q
G181_A_thaliana	- - - - -	- - - - - S	T - F S
G1931_A_thaliana	- - - - -	- - - - - S	L I F S
G1012_A_thaliana			M N
G1420_A_thaliana	A F P L P N N N N N T S F F T D L P L P Q		A E S S
G2290_A_thaliana	S D L T Q T T G V K P T T V T S S C S S S		A A V S
G2575_A_thaliana	- - - - - P Y L - - N L T S N S P V V S S		S S N E
G195_A_thaliana	- Y N A Y N Y N S S Q K S H E V V G D G C		A T I K
G187_A_thaliana	- - - - - P N - - - R D V T N D V I N G G		A C N E
G1013_A_thaliana	- - - - -	- F I A N K F V T S T	L Y S G

FIGURE 22F

	160	170
G3728_Z_mays	H H F D Y S P A P I V T A A - - - - -	- - - - -
G3804_Z_mays	H H F D Y S P A P I V T A A - - - - -	- - - - -
G3802_S_bicolor	H H F D Y S P A P I F T A V - - - - -	- - - - -
G3727_Z_mays	H H H L D Y S S P A P T L A - - - - -	- - - - -
G3721_O_sativa	C S L P A P A Q E Y P E N E - - - - -	- - - - -
G3730_O_sativa	H S V Y S L P L P P P S Q - - - - -	- - - - -
G3719_Z_mays	D G D G R R P M S G P P - - - - -	- - - - -
G3725_O_sativa	Q G V P A P P P A A V P S A S Y V T P A P A M A P	- - F A P P P P L M P
G3722_Z_mays	E - - G V G V P A A V P G A - - - - -	- - F A P P P P L M P
G3733_H_vulgare	G P L A A P L A P V G A A V - - - - -	- - - - -
G3726_O_sativa	A P P A A V F N G A P T A A - - - - -	- - - - -
G3720_Z_mays	A A G A G V A G A P G V F A D - - - - -	- - - - - G A A
G3729_O_sativa	P P V A A A P L E A G G G R - - - - -	- - - - -
G3797_L_sativa	T P V Y P S A T I E D G G L - - - - -	- - - - -
G3795_C_anuum	A A N Q V V N T S S Y Q - - - - -	- - - - -
G1275_A_thaliana	S S S C F S H P E S P S - - - - -	- - - - -
G1274_A_thaliana	T S I V S S E T F T G E S G - - - - -	- - - - -
G1758_A_thaliana	S S E K L V A A E I T S P L - - - - -	- - - - -
G3732_S_tuberosum	N E I V Q S V S D S S G S Y - - - - -	- - - - -
G3731_L_esculentum	N E I V Q S V S D T S G S Y - - - - -	- - - - -
G3724_G_max	S S E K A T F N D A T H G F - - - - -	- - - - -
G3723_G_max	S S E K A T S S D A S H G F - - - - -	- - - - -
G3803_G_max	S S E K G N S S D V S H G F - - - - -	- - - - -
G194_A_thaliana	S S I S S A S S E A L N E E K - - - - -	- - - - -
G2517_A_thaliana	S - - - - S S E A V N G - - - - -	- - - - -
G179_A_thaliana	A Q P T T S S E E - - - - -	- - - - -
G2688_A_thaliana	S K V R S E G C S - - - - -	- - - - -
G1956_A_thaliana	R P L S N P W A W S C Q A G Y G S S Q K N N H G S	- - - - -
G181_A_thaliana	G E V E P S S S S S W Y P E S - - - - -	- - - - -
G1931_A_thaliana	G D V G P S S S S - C T P A G - - - - -	- - - - -
G1012_A_thaliana	G L V D - - - S S - - - - -	- - - - -
G1420_A_thaliana	E V V N T T P T S P N S T S V - - - - -	- - - - -
G2290_A_thaliana	V A V T S T N N N P - - S A T - - - - -	- - - - -
G2575_A_thaliana	G E P K E N T N D K S D Q M E - - - - -	- - - - -
G195_A_thaliana	S E V R V S A S P S S S E A D - - - - -	- - - - -
G187_A_thaliana	T E T R V S P S N S S S S E A - - - - -	- - - - -
G1013_A_thaliana	P R I Q D I A N A L A L V E - - - - -	- - - - -

FIGURE 22G

	180	190	200
G3728_Z_mays	- - - - - G A G A G G G D R N E - K M M W C - -		
G3804_Z_mays	- - - - - G A G A G G G D R N E - K M M W C - -		
G3802_S_bicolor	- - - - - G A G A G G - D R N E K M M M W C - -		
G3727_Z_mays	- - - - - G A R S D R - - S E K Q M I R W C - -		
G3721_O_sativa	- - - - - N T M M R Y E S E E K - - - - - - -		
G3730_O_sativa	- - - - - P V V V A G G N N D Q - - - - - - -		
G3719_Z_mays	- - - - - - - Y G T G G N G G - - - - - - -		
G3725_O_sativa	A E P V V P D A V A A A G G Y P R S V A A A A - -		
G3722_Z_mays	A E R V V P D A A A G Y S S H T R S - - - - A - -		
G3733_H_vulgare	- - - - - - - - - - - A S S A T A V P A R S - -		
G3726_O_sativa	- - - - - L P D G A A A N A T R S A A E A V - -		
G3720_Z_mays	R P V V L P V P D A A G G G A I I G A A A G G - -		
G3729_O_sativa	- - - - - E Q S R R E A A V N L G K M D R G P -		
G3797_L_sativa	- - - - - S I G S S S S S N S H L H D G S R S - -		
G3795_C_anuum	- - - - - - - - - E E P S N N I G S S S S S K - -		
G1275_A_thaliana	- - - - - - - - T K T Y V A A T A T A S A D N - -		
G1274_A_thaliana	- - - - - - - G S G S A T T L S K K E S T N - - -		
G1758_A_thaliana	- - - - - Q T S L A T S P M S F E I G D K D - -		
G3732_S_tuberosum	- - - - - - - S N N P T P T S H N I K C M - - - -		
G3731_L_esculentum	- - - - - - - S N N P T P T S H N I K C M - - - -		
G3724_G_max	- - - - - - - S T G A T S K N N N I N C K - - - -		
G3723_G_max	- - - - - - - G D A T S T N T N M H I K C Q N - -		
G3803_G_max	- - - - - - - G D A T F S N T N M H I K C E N - -		
G194_A_thaliana	- - - - - P K T E D N E E E G G E D Q Q E K S - -		
G2517_A_thaliana	- - - - - - - D D E E E E D G E E Q Q H K T - -		
G179_A_thaliana	- -		
G2688_A_thaliana	- -		
G1956_A_thaliana	E I D V D D N D D E V G D G G G I N D D D N G R H		
G181_A_thaliana	- - - - - F H V H A P P L P P E - - - - - - -		
G1931_A_thaliana	- - - - - Y H L S A Q L E N F R G G G G E M G G L		
G1012_A_thaliana	- -		
G1420_A_thaliana	- - - - - S S S S N E A A N D N N S G K E V T V K		
G2290_A_thaliana	- - - - - S S S S E D P A E N S T A S A E K T P P		
G2575_A_thaliana	- - - - - D N E G D L H G V G E S S K Q L T K - -		
G195_A_thaliana	- - - - - H H P G E D S G K I R K K R E V R D G G		
G187_A_thaliana	- - - - - D H P G E D S G K S R R K R E L V G - -		
G1013_A_thaliana	- - - - - - - - P L T H P V R E I S K S T V P - -		

FIGURE 22H

	210										220														
G3728_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	D	E	R	R					
G3804_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	Q	G	G	G	D	E	R	R					
G3802_S_bicolor	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	D	E	K	R					
G3727_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	E	G	G	G	G	E	K	R					
G3721_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M	R					
G3730_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	Y	G	V	S	S	S	S	S					
G3719_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	-	G	R	P	P	S	S	-					
G3725_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	A	A	V	A	G	E	G	R					
G3722_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	A	A	V	A	G	E	G	S					
G3733_H_vulgare	-	-	-	-	-	-	-	-	-	-	-	-	A	A	E	S	A	A	A	V					
G3726_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	P	A	P	A	P	A	A	V					
G3720_Z_mays	-	-	-	-	-	-	-	-	-	-	-	-	A	A	A	A	S	E	V	P					
G3729_O_sativa	-	-	-	-	-	-	-	-	-	-	A	P	V	S	G	G	A	A	T	G	G	V			
G3797_L_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	R	A	T	G	F	G	Q	A				
G3795_C_anuum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R				
G1275_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	N	K	K	E	-	-	-				
G1274_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	R	G	S	K	E	S	D	Q				
G1758_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	I	K	K	R	K	R				
G3732_S_tuberosum	-	-	-	-	-	-	-	-	-	-	-	-	-	K	G	V	K	-	-	-	-				
G3731_L_esculentum	-	-	-	-	-	-	-	-	-	-	-	-	-	K	G	I	K	-	-	-	-				
G3724_G_max	-	-	-	-	-	-	-	-	-	-	-	-	-	N	G	I	N	E	-	-	N				
G3723_G_max	-	-	-	-	-	-	-	-	-	-	-	-	-	S	G	I	K	G	-	-	K				
G3803_G_max	-	-	-	-	-	-	-	-	-	-	-	-	-	N	G	I	K	R	-	-	K				
G194_A_thaliana	-	-	-	-	-	-	-	-	-	H	T	K	K	Q	L	K	A	K	K	N	N	Q			
G2517_A_thaliana	-	-	-	-	-	-	-	-	-	K	K	R	F	K	F	T	K	M	S	R	K	Q			
G179_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	K	P	R	S	K	K	K	K	E				
G2688_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	K	S	V	E	S	S	K	K	G				
G1956_A_thaliana	H	H	H	D	T	P	S	R	H	D	K	H	N	T	A	S	L	G	V	V	S	S	L	K	M
G181_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	N	D	Q	I	G	E	K	G	K	E	L		
G1931_A_thaliana	V	S	N	-	-	-	-	-	-	-	-	-	N	S	N	N	S	D	H	N	K	N	C		
G1012_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	D	K	K	M			
G1420_A_thaliana	D	Q	E	E	G	D	Q	Q	Q	E	Q	K	G	T	K	P	Q	L	K	A	K	K	K	N	Q
G2290_A_thaliana	P	E	-	-	-	-	-	-	-	-	-	-	-	T	P	V	K	E	K	K	K	A	Q		
G2575_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Q	G	K	K	K	G	E			
G195_A_thaliana	E	D	D	Q	R	-	-	-	-	-	-	-	S	Q	K	V	V	K	T	K	K	K	E	E	
G187_A_thaliana	E	E	D	Q	I	-	-	-	-	-	-	-	S	K	K	V	G	K	T	K	K	T	E	V	
G1013_A_thaliana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L	L	E	R	S	T	L		

FIGURE 22I

		230		240		250																			
G3728_Z_mays	L	R	-	-	-	-	S	N	G	R	I	G	F	R	T	R	S	-	-	E	-	V			
G3804_Z_mays	L	R	-	-	-	-	-	S	N	G	R	I	G	F	R	T	R	S	-	-	Q	-	V		
G3802_S_bicolor	L	R	-	-	-	-	-	S	S	G	R	I	G	F	R	T	R	S	-	-	E	-	V		
G3727_Z_mays	L	-	-	-	-	-	-	-	-	G	R	I	G	F	R	T	R	S	-	-	E	-	V		
G3721_O_sativa	A	R	-	-	-	-	-	V	N	G	R	I	G	F	R	T	R	S	-	-	E	-	V		
G3730_O_sativa	A	A	A	-	-	-	-	T	T	S	R	I	G	F	R	T	R	S	-	-	E	-	V		
G3719_Z_mays	-	-	-	-	-	-	-	-	-	S	R	I	G	F	R	T	R	S	-	-	E	-	V		
G3725_O_sativa	D	R	T	-	-	-	-	T	T	D	K	I	A	F	R	T	R	S	-	-	D	-	D		
G3722_Z_mays	R	-	-	-	-	-	-	T	T	H	R	I	A	F	R	V	R	S	-	-	D	E	D		
G3733_H_vulgare	E	R	P	-	-	-	-	R	T	E	R	I	A	F	R	T	R	T	-	-	E	-	I		
G3726_O_sativa	E	R	P	-	-	-	-	R	T	E	R	I	A	F	R	T	K	S	-	-	E	-	I		
G3720_Z_mays	E	R	P	-	-	-	-	R	T	T	R	I	A	F	R	T	R	S	-	-	E	-	I		
G3729_O_sativa	P	R	S	-	-	-	-	K	N	G	S	K	I	A	F	K	T	R	S	-	-	-	E	V	
G3797_L_sativa	Q	N	G	-	-	-	-	-	K	K	E	K	V	A	F	K	T	K	S	Q	-	-	-	V	
G3795_C_anuum	K	E	-	-	-	-	-	V	K	D	K	V	A	F	R	T	L	S	Q	-	-	-	I		
G1275_A_thaliana	K	K	K	-	-	-	-	-	I	K	G	R	V	A	F	K	T	R	S	-	-	-	E	V	
G1274_A_thaliana	T	K	E	-	-	-	-	-	T	G	H	R	V	A	F	R	T	R	S	-	-	-	K	I	
G1758_A_thaliana	H	K	E	-	-	-	-	-	D	P	I	I	H	V	F	K	T	K	S	S	I	D	E	K	
G3732_S_tuberosum	K	V	D	-	-	-	-	-	A	K	S	R	V	A	F	R	F	R	S	-	-	-	E	L	
G3731_L_esculentum	K	V	D	-	-	-	-	-	A	K	S	K	V	A	F	R	F	R	S	-	-	-	E	L	
G3724_G_max	K	G	G	-	-	-	-	-	V	G	P	R	I	A	F	R	T	K	S	-	-	-	E	L	
G3723_G_max	N	A	E	-	-	-	-	-	V	S	Q	R	I	T	F	R	T	R	S	-	-	-	Q	L	
G3803_G_max	K	E	E	-	-	-	-	-	V	S	Q	M	I	T	F	R	T	R	S	-	-	-	Q	L	
G194_A_thaliana	K	R	Q	-	-	-	-	-	R	E	A	R	V	A	F	M	T	K	S	-	-	-	E	V	
G2517_A_thaliana	T	K	K	-	-	-	-	-	K	V	P	K	V	S	F	I	T	R	S	-	-	-	E	V	
G179_A_thaliana	R	E	-	-	-	-	-	-	-	A	R	Y	A	F	Q	T	R	S	-	-	-	Q	V		
G2688_A_thaliana	K	K	-	-	-	-	-	-	-	Q	R	Y	A	F	Q	T	R	S	-	-	-	Q	V		
G1956_A_thaliana	K	K	L	K	T	R	R	K	V	R	E	P	R	F	C	F	K	T	L	S	-	-	-	E	V
G181_A_thaliana	K	E	-	-	-	K	R	S	R	K	V	P	R	I	A	F	H	T	R	S	-	-	-	D	D
G1931_A_thaliana	N	K	G	K	G	K	R	T	L	A	M	Q	R	I	A	F	H	T	R	S	-	-	-	D	D
G1012_A_thaliana	K	N	-	-	-	-	-	-	-	-	P	R	F	S	F	R	T	K	S	-	-	-	D	A	
G1420_A_thaliana	K	K	-	-	-	-	-	-	A	R	E	A	R	F	A	F	L	T	K	S	-	-	-	D	I
G2290_A_thaliana	K	R	-	-	-	-	-	-	I	R	Q	P	R	F	A	F	M	T	K	S	-	-	-	D	V
G2575_A_thaliana	K	K	E	-	-	-	-	-	-	R	E	V	R	V	A	F	M	T	K	S	-	-	-	E	I
G195_A_thaliana	K	K	-	-	-	-	-	-	-	K	E	P	R	V	S	F	M	T	K	T	-	-	-	E	V
G187_A_thaliana	K	K	Q	-	-	-	-	-	-	R	E	P	R	V	S	F	M	T	K	S	-	-	-	E	V
G1013_A_thaliana	S	K	-	-	-	-	-	-	-	V	D	R	Y	T	L	K	V	K	N	-	-	-	N	S	N
												R	-	A	F	R	T	R	S						

FIGURE 22J

	260	270
G3728_Z_mays	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3804_Z_mays	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3802_S_bicolor	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3727_Z_mays	E I L D D G F K W R K Y G K K	A V K S S P N P R N
G3721_O_sativa	E I L D D G F K W R K Y G K K	A V K N S P N P R N
G3730_O_sativa	E V L D D G F K W R K Y G K K	A V K S S P N P R N
G3719_Z_mays	D V L D D G F K W R K Y G K K	A V K S S P N P R N
G3725_O_sativa	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3722_Z_mays	E V L D D G Y K W R K Y G K K	S V K N S P N P R N
G3733_H_vulgare	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3726_O_sativa	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3720_Z_mays	E I L D D G Y K W R K Y G K K	S V K N S P N P R N
G3729_O_sativa	D V L D D G Y R W R K Y G K K	M V K N S P N P R N
G3797_L_sativa	E I L D D G F K W R K Y G K K	M V K N S P N P R N
G3795_C_anuum	E I L D D G Y K W R K Y G K K	M V K N S P N P R N
G1275_A_thaliana	E V L D D G F K W R K Y G K K	M V K N S P H P R N
G1274_A_thaliana	D V M D D G F K W R K Y G K K	S V K N N I N K R N
G1758_A_thaliana	V A L D D G Y K W R K Y G K K	P I T G S P F P R H
G3732_S_tuberosum	E V L D D G F K W R K Y G K K	M V K N S S N P R N
G3731_L_esculentum	E V L D D G F K W R K Y G K K	M V K N N P N P R N
G3724_G_max	E I M D D G Y K W R K Y G K K	S V K S S P N L R N
G3723_G_max	E V M D D G Y K W R K Y G K K	T V K S S P N P R N
G3803_G_max	E V M D D G Y K W R K Y G K K	T V K N N P N P R N
G194_A_thaliana	D H L E D G Y R W R K Y G Q	K A V K N S P F P R S
G2517_A_thaliana	L H L D D G Y K W R K Y G Q	K P V K D S P F P R N
G179_A_thaliana	D I L D D G Y R W R K Y G Q	K A V K N - P F P R S
G2688_A_thaliana	D I L D D G Y R W R K Y G Q	K A V K N N K F P R S
G1956_A_thaliana	D V L D D G Y R W R K Y G Q	K V V K N T Q H P R S
G181_A_thaliana	D V L D D G Y R W R K Y G Q	K S V K H N A H P R S
G1931_A_thaliana	D V L D D G Y R W R K Y G Q	K S V K N N A H P R S
G1012_A_thaliana	D I L D D G Y R W R K Y G Q	K S V K N S L Y P R S
G1420_A_thaliana	D N L D D G Y R W R K Y G Q	K A V K N S P Y P R S
G2290_A_thaliana	D N L E D G Y R W R K Y G Q	K A V K N S P F P R S
G2575_A_thaliana	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G195_A_thaliana	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G187_A_thaliana	D H L E D G Y R W R K Y G Q	K A V K N S P Y P R S
G1013_A_thaliana	G M C D D G Y K W R K Y G Q	K S I K N S P N P R S
	E . L D D G Y K W R K Y G K K	V K N S P N P R N

FIGURE 22K

	280		290		300
G3728_Z_mays	Y Y R C S S E G C	G	V K K R V E R D	R	D D P R Y V
G3804_Z_mays	Y Y R C S S E G C	G	V K K R V E R D	R	D D P R Y V
G3802_S_bicolor	Y Y R C S S E G C	G	V K K R V E R D	R	D D P R Y V
G3727_Z_mays	Y Y R C S S E G C	G	V K K R V E R D	R	D D P R Y V
G3721_O_sativa	Y Y R C S T E G C	N	V K K R V E R D	R	E D H R Y V
G3730_O_sativa	Y Y R C S A A G C	G	V K K R V E R D	G	D D P R Y V
G3719_Z_mays	Y Y R C S T E G S	G	V K K R V E R D	S	D D P R Y V
G3725_O_sativa	Y Y R C S T E G C	N	V K K R V E R D	K	N D P R Y V
G3722_Z_mays	Y Y R C S T E G C	N	V K K R V E R D	R	D D P R Y V
G3733_H_vulgare	Y Y R C S T E G C	S	V K K R V E R D	R	D D P A Y V
G3726_O_sativa	Y Y R C S T E G C	N	V K K R V E R D	K	D D P S Y V
G3720_Z_mays	Y Y R C S T E G C	N	V K K R V E R D	K	D D P S Y V
G3729_O_sativa	Y Y R C S S E G C	R	V K K R V E R	A	R D D A R F V
G3797_L_sativa	Y Y R C S A A G C	S	V K K R V E R D	V	E D A R Y V
G3795_C_anuum	Y Y R C S V E G C	P	V K K R V E R D	K	E D S R Y V
G1275_A_thaliana	Y Y K C S V D G C	P	V K K R V E R D	R	D D P S F V
G1274_A_thaliana	Y Y K C S S E G C	S	V K K R V E R D	G	D D A A Y V
G1758_A_thaliana	Y H K C S S P D C	N	V K K K I E R D	T	N N P D Y I
G3732_S_tuberosum	Y Y K C S S G G C	N	V K K R V E R D	N	E D S S Y V
G3731_L_esculentum	Y Y K C S S G G C	N	V K K R V E R D	N	K D S S Y V
G3724_G_max	Y Y K C S S G G C	S	V K K R V E R D	R	D D Y S Y V
G3723_G_max	Y Y K C S G E G C	D	V K K R V E R D	R	D D S N Y V
G3803_G_max	Y Y K C S G E G C	N	V K K R V E R D	R	D D S N Y V
G194_A_thaliana	Y Y R C T T A S C	N	V K K R V E R	S	F R D P S T V
G2517_A_thaliana	Y Y R C T T T W C	D	V K K R V E R	S	F S D P S S V
G179_A_thaliana	Y Y K C T E E G C	R	V K K Q V Q R	Q	W G D E G V V
G2688_A_thaliana	Y Y R C T Y G G C	N	V K K Q V Q R	L	T V D Q E V V
G1956_A_thaliana	Y Y R C T Q D K C	R	V K K R V E R	L	A D D P R M V
G181_A_thaliana	Y Y R C T Y H T C	N	V K K Q V Q R	L	A K D P N V V
G1931_A_thaliana	Y Y R C T Y H T C	N	V K K Q V Q R	L	A K D P N V V
G1012_A_thaliana	Y Y R C T Q H M C	N	V K K Q V Q R	L	S K E T S I V
G1420_A_thaliana	Y Y R C T T V G C	G	V K K R V E R	S	S D D P S I V
G2290_A_thaliana	Y Y R C T N S R C	T	V K K R V E R	S	S D D P S I V
G2575_A_thaliana	Y Y R C T T Q K C	N	V K K R V E R	S	F Q D P S I V
G195_A_thaliana	Y Y R C T T Q K C	N	V K K R V E R	S	Y Q D P T V V
G187_A_thaliana	Y Y R C T T Q K C	N	V K K R V E R	S	F Q D P T V V
G1013_A_thaliana	Y Y K C T N P I C	N	A K K Q V E R	S	I D E S N T Y
	Y Y R C S . . G C		V K K R V E R D		D D P Y V

FIGURE 22L

	310										320														
G3728_Z_mays	I	T	T	Y	D	G	V	H	N	H	A	S	P	G	A	A	I	I	V	P	Y	G	S	G	
G3804_Z_mays	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	I	I	V	P	Y	G	N	G	
G3802_S_bicolor	I	T	T	Y	D	G	V	H	N	H	A	S	P	G	A	A	I	I	Q	Y	G	G	-	G	
G3727_Z_mays	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	I	I	Q	Y	G	G	-	-	
G3721_O_sativa	I	T	T	Y	D	G	V	H	N	H	A	S	P	A	A	A	A	A	L	Q	Y	A	A	A	
G3730_O_sativa	V	T	T	Y	D	G	V	H	N	H	A	T	P	G	C	V	G	G	G	G	H	L	P	Y	P
G3719_Z_mays	V	T	T	Y	D	G	V	H	N	H	A	A	P	G	-	P	G	A	A	S	Y	L	C	Q	P
G3725_O_sativa	V	T	M	Y	E	G	I	H	N	H	V	C	P	G	T	V	Y	Y	A	A	Q	D	A	-	-
G3722_Z_mays	V	T	M	Y	E	G	V	H	N	H	V	S	P	G	T	V	Y	Y	A	T	H	D	A	-	-
G3733_H_vulgare	V	T	T	Y	E	G	T	H	S	H	A	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3726_O_sativa	V	T	T	Y	E	G	T	H	N	H	V	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3720_Z_mays	V	T	T	Y	E	G	M	H	N	H	V	S	P	S	T	V	Y	Y	A	S	Q	D	A	-	-
G3729_O_sativa	V	T	T	Y	D	G	V	H	N	H	P	A	P	L	H	L	R	P	Q	L	P	P	P	G	G
G3797_L_sativa	I	T	T	Y	E	G	I	H	N	H	Q	R	P	S	N	Y									
G3795_C_anuum	I	T	T	Y	E	G	V	H	N	H	Q	G	L	S	P	F									
G1275_A_thaliana	I	T	T	Y	E	G	S	H	N	H	S	S	M	N											
G1274_A_thaliana	I	T	T	Y	E	G	V	H	N	H	E	S	L	S	N	V	Y	Y	N	E	M	V	L	S	Y
G1758_A_thaliana	L	T	T	Y	E	G	R	H	N	H	P	S	P	S	V	V	Y	C	D	S	D	D	F	D	L
G3732_S_tuberosum	I	T	T	Y	E	G	I	H	N	H	E	S	P	Y	V	F	H	Y	T	Q	F	P	P	N	N
G3731_L_esculentum	I	T	T	Y	E	G	I	H	N	H	E	S	P	H	V	L	H	Y	T	Q	F	P	P	N	N
G3724_G_max	I	T	T	Y	E	G	V	H	N	H	E	S	P	F	T	T	Y	Y	S	P	I	S	F	V	H
G3723_G_max	L	T	T	Y	D	G	V	H	N	H	Q	T	P	S	T	A	Y	Y	S	Q	M	P	L	L	H
G3803_G_max	L	T	T	Y	D	G	V	H	N	H	E	S	P	S	T	A	Y	Y	S	Q	I	P	L	V	H
G194_A_thaliana	V	T	T	Y	E	G	Q	H	T	H	I	S	P	L	T	S	R	P	I	S	T	G	G	F	F
G2517_A_thaliana	I	T	T	Y	E	G	Q	H	T	H	P	R	P	L	L	I	M	P	-	-	K	E	G	S	S
G179_A_thaliana	V	T	T	Y	Q	G	V	H	T	H	A	V	D	K	P	S	D	N	F	H	H	I	L	T	Q
G2688_A_thaliana	V	T	T	Y	E	G	V	H	S	H	P	I	E	K	S	T	E	N	F	E	H	I	L	T	Q
G1956_A_thaliana	I	T	T	Y	E	G	R	H	L	H	S	P	S	N	H	L	D	D	D	S	L	S	T	-	-
G181_A_thaliana	V	T	T	Y	E	G	V	H	N	H	P	C	E	K	L	M	E	T	L	N	P	L	L	R	Q
G1931_A_thaliana	V	T	T	Y	E	G	V	H	N	H	P	C	E	K	L	M	E	T	L	S	P	L	L	R	Q
G1012_A_thaliana	E	T	T	Y	E	G	I	H	N	H	P	C	E	E	L	M	Q	T	L	T	P	L	L	H	Q
G1420_A_thaliana	M	T	T	Y	E	G	Q	H	T	H	P	F	P	M	T	P	R	G	H	I	G	M	L	T	S
G2290_A_thaliana	I	T	T	Y	E	G	Q	H	C	H	Q	T	I	G	F	P	R	G	G	I	L	T	A	H	D
G2575_A_thaliana	I	T	T	Y	E	G	K	H	N	H	P	I	P	S	T	L	R	G	T	V	A	A	E	H	L
G195_A_thaliana	I	T	T	Y	E	S	Q	H	N	H	P	I	P	T	N	R	R	T	A	M	F	S	G	T	T
G187_A_thaliana	I	T	T	Y	E	G	Q	H	N	H	P	I	P	T	N	L	R	G	S	S	A	A	A	A	M
G1013_A_thaliana	I	I	T	Y	E	G	F	H	F	H	Y	T	Y	P	F	F	L	P	D	K	T	R	Q	W	P
	I	T	T	Y	E	G	.	H	N	H	.	P													

FIGURE 22M

	330	340	350
G3728_Z_mays	- - - - - - - G G N S G F Y S P P H S G S P S - -		
G3804_Z_mays	- - - - - - - G G N S G F Y S P P H S G S P S - -		
G3802_S_bicolor	- - - - - - - G G N S G F Y S P P H S G S P S - -		
G3727_Z_mays	- - - - - - - - G G - G F Y S P P H S G S P S - -		
G3721_O_sativa	- - - - - - - A G D Y Y S P P L S S A G S P P - -		
G3730_O_sativa	- - - - - - T S A A P P W S V P A A A A S P P P -		
G3719_Z_mays	P P P R G A T A T A T P F S P P R S A S A P A P L		
G3725_O_sativa	- - - - - - - - - A S G R F F V A G I S H P D - -		
G3722_Z_mays	- - - - - - - - - A S G R F F V A G M H Q P G - -		
G3733_H_vulgare	- - - - - - - - - A S G R F F V A G T H P P P - -		
G3726_O_sativa	- - - - - - - - - A S G R F F V A G T Q P P - - -		
G3720_Z_mays	- - - - - - - - - A S G R F F V A G T Q P P - - -		
G3729_O_sativa	- - - - - - - Y S I A G A P A V V A P H G R L - -		
G3797_L_sativa			
G3795_C_anuum			
G1275_A_thaliana			
G1274_A_thaliana	- - - - - - - - - D H D N W N Q H S L L R S		
G1758_A_thaliana	N S L N N W S F Q T A N T Y S F S H S A P Y		
G3732_S_tuberosum	- - - - - - - - - I A L H N L C L		
G3731_L_esculentum	- - - - - - - - - I A L H N L H L		
G3724_G_max	- - - - - - - - - S D T T F K		
G3723_G_max	- - - - - - - - - S N H D W A - L H P S A N S		
G3803_G_max	- - - - - - - - - S N H D W P Q L H P S A N S		
G194_A_thaliana	G S - - - - - - S G A A S S L G N G C F G F P I D		
G2517_A_thaliana	P S - - - - - - N G S A S R A H I G L P T L P - -		
G179_A_thaliana	M H - - - - - - I F P P F C L K E		
G2688_A_thaliana	M Q - - - - - - I Y S S F		
G1956_A_thaliana	- - - - - - - - - S H L H P P L S N F F W		
G181_A_thaliana	L Q - - - - - - F L S S F S N L		
G1931_A_thaliana	L Q - - - - - - F L S R V S D L		
G1012_A_thaliana	L Q - - - - - - F L S K F T		
G1420_A_thaliana	P I - - - - - - L D H G A T T A S S S S F S I P Q		
G2290_A_thaliana	P - - - - - - - - H S F T S H H H L P P P L P N		
G2575_A_thaliana	L V - - - - - - H R G - G G G S L L H S F P R H H		
G195_A_thaliana	A S - - - - - - D Y N P S S S S P I F S D L I I N T		
G187_A_thaliana	F S - - - - - - A D L M T P R S F A H D M F R T A		
G1013_A_thaliana	N K K T K I H K H N A Q D M N K K S Q T Q E E S K		

FIGURE 22N

	360	370
G3728_Z_mays	-	-
G3804_Z_mays	-	-
G3802_S_bicolor	-	-
G3727_Z_mays	-	-
G3721_O_sativa	-	-
G3730_O_sativa	-	-
G3719_Z_mays	A A A P S W	-
G3725_O_sativa	-	-
G3722_Z_mays	-	-
G3733_H_vulgare	-	-
G3726_O_sativa	-	-
G3720_Z_mays	-	-
G3729_O_sativa	-	-
G3797_L_sativa		
G3795_C_anuum		
G1275_A_thaliana		
G1274_A_thaliana		
G1758_A_thaliana		
G3732_S_tuberosum		
G3731_L_esculentum		
G3724_G_max		
G3723_G_max		
G3803_G_max		
G194_A_thaliana	G S T L I S P Q F Q Q L V Q Y H H Q Q Q Q Q E L M	
G2517_A_thaliana	- - - - - - - - P Q L L D Y N N Q Q Q Q A P S S	
G179_A_thaliana		
G2688_A_thaliana		
G1956_A_thaliana		
G181_A_thaliana		
G1931_A_thaliana		
G1012_A_thaliana		
G1420_A_thaliana	P R Y L L T - - - - Q H H Q P Y N M Y N N N S L S	
G2290_A_thaliana	P Y Y Y Q E - - - - L L H Q L H R - - D N N - - -	
G2575_A_thaliana	Q D F L M M - - - - K H S P A N Y Q S V G S - - -	
G195_A_thaliana	P R S F S - - - - - - - - - - N D D L F R - - -	
G187_A_thaliana	A Y T N G G - - - - S V A A A L D Y G Y G Q - - -	
G1013_A_thaliana	E -	

FIGURE 22O

	380	390	400
G3728_Z_mays	-	-	-
G3804_Z_mays	-	-	-
G3802_S_bicolor	-	-	-
G3727_Z_mays	-	-	-
G3721_O_sativa	-	-	-
G3730_O_sativa	-	-	-
G3719_Z_mays	-	-	-
G3725_O_sativa	-	-	-
G3722_Z_mays	-	-	-
G3733_H_vulgare	-	-	-
G3726_O_sativa	-	-	-
G3720_Z_mays	-	-	-
G3729_O_sativa	-	-	-
G3797_L_sativa			
G3795_C_anuum			
G1275_A_thaliana			
G1274_A_thaliana			
G1758_A_thaliana			
G3732_S_tuberosum			
G3731_L_esculentum			
G3724_G_max			
G3723_G_max			
G3803_G_max			
G194_A_thaliana	S	C	F
G2517_A_thaliana	F	G	T
G179_A_thaliana	E	Y	I
G2688_A_thaliana	N	R	Q
G1956_A_thaliana	E	K	G
G181_A_thaliana	I	N	H
G1931_A_thaliana	D	D	D
G1012_A_thaliana	D	D	D
G1420_A_thaliana	H	V	V
G2290_A_thaliana	K	K	K
G2575_A_thaliana			
G195_A_thaliana			
G187_A_thaliana			
G1013_A_thaliana			

FIGURE 22P

	410	420
G3728_Z_mays	- - - - - - - - - - - A T S Y S G S L A F	
G3804_Z_mays	- - - - - - - - - - - A T S Y S G S L V F	
G3802_S_bicolor	- - - - - - - - - - - A A S Y S G S F V F	
G3727_Z_mays	- - - - - - - - - - - A A S Y S G S F V L	
G3721_O_sativa	- - - - - - - - - - - A A Y F G R R L R C S S E G	
G3730_O_sativa	- - - - - - - - - - - A H A Q A W G A P L H A A A A -	
G3719_Z_mays	- - - - - - - S A A C D A W W E A Q L H A A A A V	
G3725_O_sativa	- - - - - - - - - - - - - - - - - L N	
G3722_Z_mays	- - - - - - - - - - - - - - - - - H	
G3733_H_vulgare	- - - - - - - - - - - - - - - - - G S L N	
G3726_O_sativa	- - - - - - - - - - - - - - - - - G S L N	
G3720_Z_mays	- - - - - - - - - - - - - - - - - G S L N	
G3729_O_sativa	- - - - - - - - - G L E E A E V I A L F R G T T A T	
G3797_L_sativa		
G3795_C_anuum		
G1275_A_thaliana		
G1274_A_thaliana		
G1758_A_thaliana		
G3732_S_tuberosum		
G3731_L_esculentum		
G3724_G_max		
G3723_G_max		
G3803_G_max		
G194_A_thaliana	S R - - - - - - - - - V L V K D N G L L Q D V V P S	
G2517_A_thaliana	S R T R D L L D G A G L V K D H G L L Q D V V P S	
G179_A_thaliana		
G2688_A_thaliana		
G1956_A_thaliana		
G181_A_thaliana		
G1931_A_thaliana		
G1012_A_thaliana		
G1420_A_thaliana	D M S Q A S T S T S S S I R D H G L L Q D I L P S	
G2290_A_thaliana	E D T P A V S T P S - - - - - E E G L L G D I V P Q	
G2575_A_thaliana	S Y N F N N N Q P V - - - - - V D Y G L L Q D I V P S	
G195_A_thaliana	S Y H Q Q Q H G F H Q Q E S E F E L L K E M F P S	
G187_A_thaliana	S S H Q V Y H Q G G - - - - - E Y E L L R E I F P S	
G1013_A_thaliana	L E E G L F F P V D Q C R P Q Q G L L E D V V A P	

FIGURE 22Q

430

440

450

G3728_Z_mays	
G3804_Z_mays	
G3802_S_bicolor	
G3727_Z_mays	
G3721_O_sativa	
G3730_O_sativa	A H S S E S S F
G3719_Z_mays	A H S S E S S Y
G3725_O_sativa	
G3722_Z_mays	
G3733_H_vulgare	
G3726_O_sativa	
G3720_Z_mays	
G3729_O_sativa	S L L L P
G3797_L_sativa	
G3795_C_anuum	
G1275_A_thaliana	
G1274_A_thaliana	
G1758_A_thaliana	
G3732_S_tuberosum	
G3731_L_esculentum	
G3724_G_max	
G3723_G_max	
G3803_G_max	
G194_A_thaliana	H M L K E E
G2517_A_thaliana	H I I K E E Y
G179_A_thaliana	
G2688_A_thaliana	
G1956_A_thaliana	
G181_A_thaliana	
G1931_A_thaliana	
G1012_A_thaliana	
G1420_A_thaliana	Q I R S D T I N T Q T N E E N K K
G2290_A_thaliana	T M R N P
G2575_A_thaliana	M F S K N E S
G195_A_thaliana	V F F K Q E P
G187_A_thaliana	I F F K Q E P
G1013_A_thaliana	A M K N I P T R D S V L T A S

FIGURE 22R

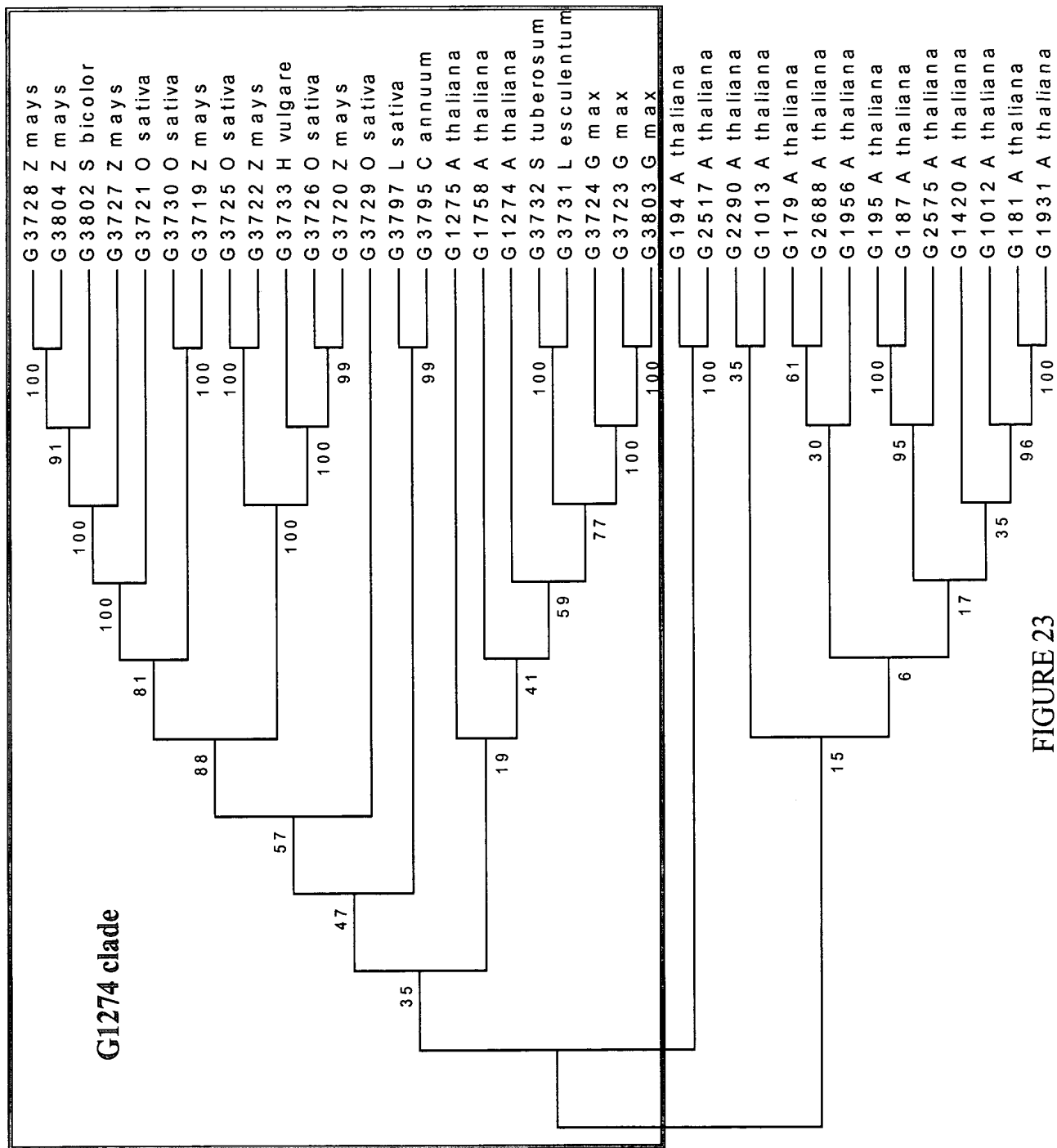


FIGURE 23



FIGURE 25A

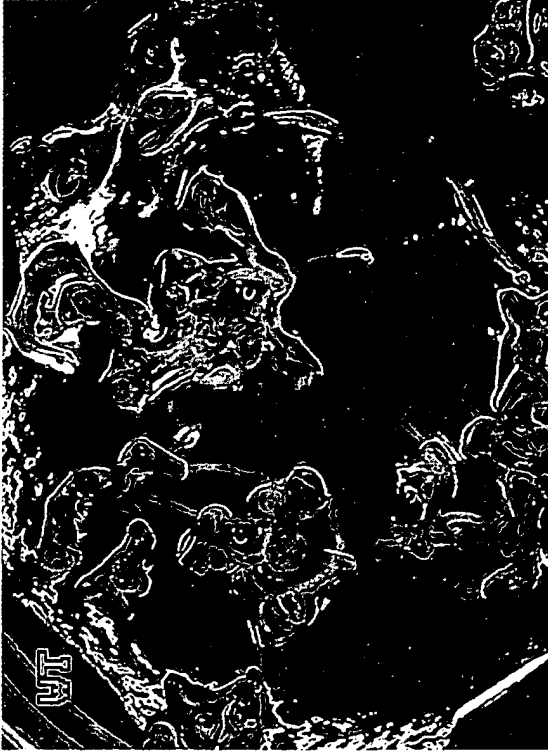


FIGURE 25B

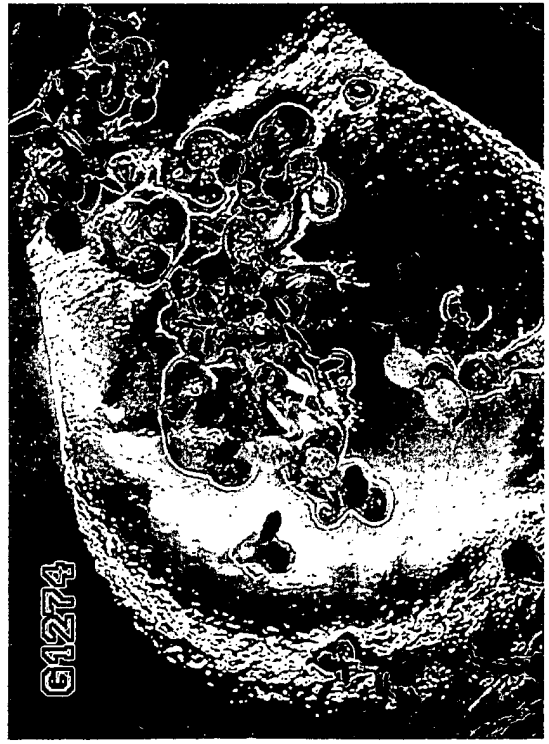


FIGURE 25C



FIGURE 25D

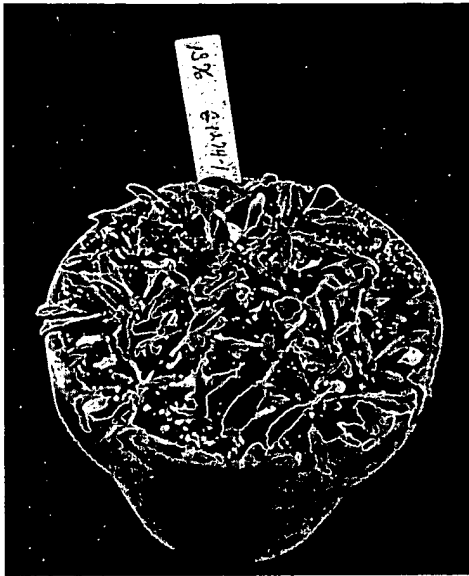


FIGURE 26A

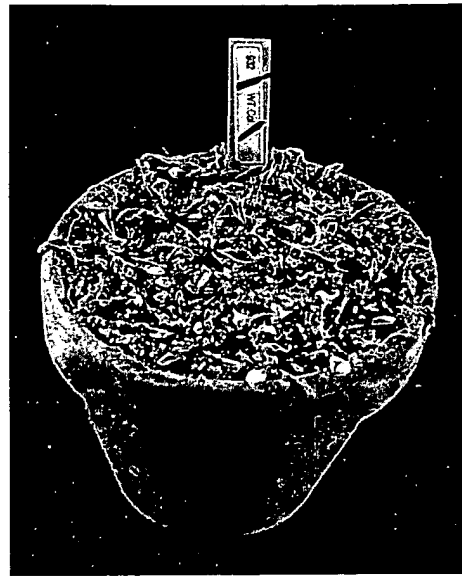


FIGURE 26B

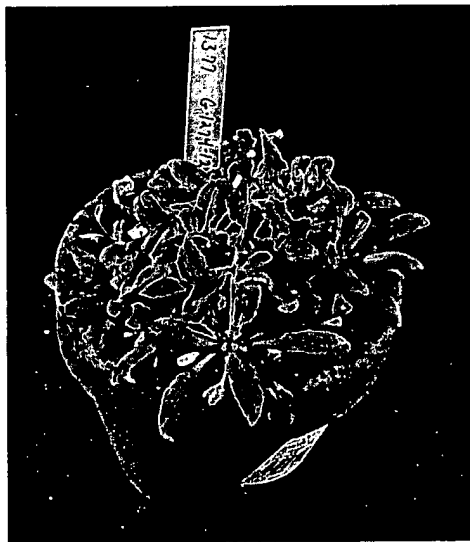


FIGURE 26C

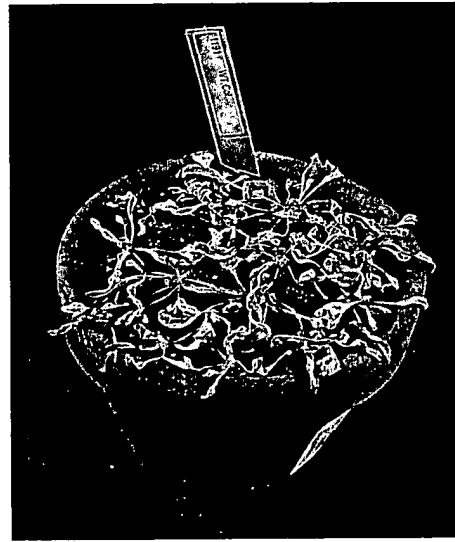


FIGURE 26D

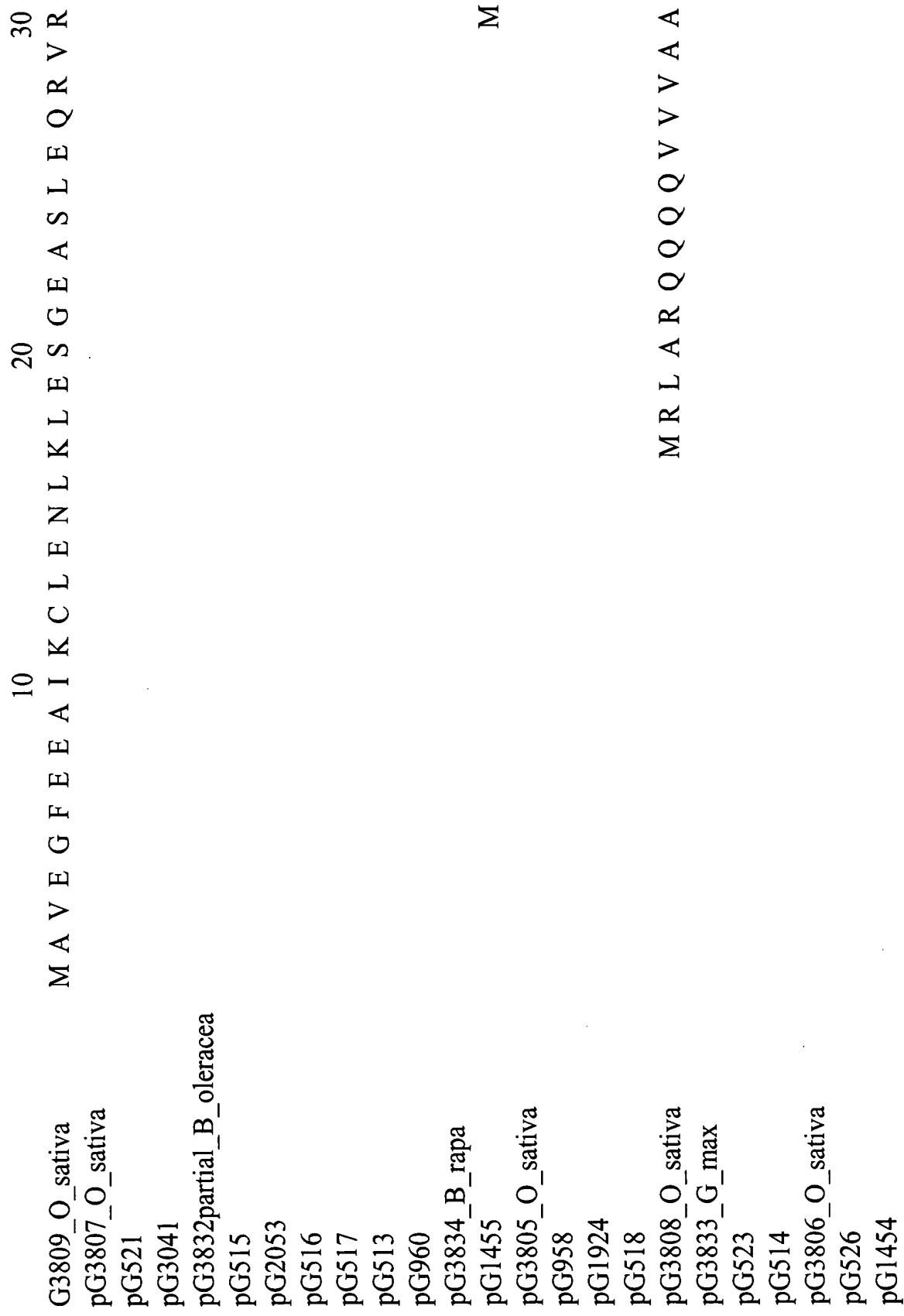


FIGURE 27A

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	70	80	90
G3809_O_sativa	P T D D E E L L	L H Y L G K R A	A - - - A A P C P A
pG3807_O_sativa	P T D D V E L L	T V Y Y L K R K L	L - - - G K H L R C N A V
pG521	P T D D V E L V	R Y Y L K R K V	M - - - G K K F Q V D A I
pG3041	P T D D E E L V	R Y Y L K R K I	C - - - N K P F K F D A I
pG3832partial_B_oleracea	P T D D V E L V	H Y L R P K N N G G S	T T S S Q V D Q V I
pG515	P T D D E E I V	D Y L W P K N S - -	- - - D R D T S H V D R F I I
pG2053	P T D D K E I V	D Y L R P K N S - -	- - - D R D T S H V D R V I I
pG516	P T D D E E I V	I Y L R P K N L - -	- - - E S N T S H V D E V I I
pG517	P T D D E E I V	H Y L R P K N L - -	- - - D S D T S H V D E V I I
pG513	P T D D E E L V	R Y Y L R L K I N -	- - - G H D N D V R V I I
pG960	P T D D E E L V	H Y L R L K I N - -	- - - G R H S D V R V I I
pG3834_B_rapa	P T D D E E L I	N H Y L R L K I N -	- - - G R D L E V R V I I
pG1455	P T D D E E L I	N H Y L R L K I N -	- - - G R D L E V R V I I
pG3805_O_sativa	P T D D E E L I	I Y Y L K R K I N -	- - - G R Q I E L E I I I
pG958	P T D D E E L V	I Y Y L K R K I N -	- - - G R T I E L E I I I
pG1924	P T D D E E L V	N Y Y L K R K I N -	- - - G Q E I E L E I I I
pG518	P T D D E E L I	T Y Y L K R K I N -	- - - G Q E I E L E I I I
pG3808_O_sativa	P T D D E E L I	T H Y L L R K A A D	- - - P A G F A R A V
pG3833_G_max	P T D D E E L I	S H Y L Y R K V T -	- - - D T N F S A R A I
pG523	P T D D E E L I	T H Y L H K K V L -	- - - D L G F S A K A I
pG514	P T D D E E L I	T H Y L H N K V L -	- - - D T S F S A K A I
pG3806_O_sativa	P T D D E E V V	T H Y L T R K A Q -	- - - D R S F S C V V I
pG526	P T D D E E I I	T C Y L K E K V L -	- - - N S R F T A V A I
pG1454	P T D D E E L V	H Y L K R K A -	- - - S A P L P V A I

G3809_O_sativa	A	E	V	D	I	Y	K	Y	P	N	100	A	M	A	-	V	F	G	E	S	D	G	E	W	Y	F	F	120
pG3807_O_sativa	S	E	L	D	L	Y	K	F	P	A		E	K	S	-	S	L	Q	K	D	R	E	W	Y	F	F		
pG521	A	E	V	D	I	Y	K	F	P	P		D	K	S	-	C	L	G	T	G	L	K	W	Y	F	F		
pG3041	S	V	T	D	V	Y	K	S	E	P		W	D	L	-	R	L	K	S	R	D	E	W	Y	F	F		
pG3832partial_B_oleracea	N	T	V	D	I	C	N	L	D	P		W	E	L	-	S	I	A	S	D	Q	V	W	Y	F	F		
pG515	N	T	V	P	V	C	R	L	D	P		W	E	L	-	R	I	K	L	K	D	V	W	Y	F	F		
pG2053	S	T	V	T	I	R	S	F	D	P		W	E	L	-	R	I	K	L	K	D	E	W	Y	F	F		
pG516	S	T	V	D	I	C	S	F	D	P		W	D	L	-	R	M	K	T	R	D	Q	V	W	Y	F	F	
pG517	S	T	V	D	I	C	S	F	E	P		W	D	L	-	M	I	K	S	R	D	G	V	W	Y	F	F	
pG513	R	E	I	D	I	C	K	W	E	P		W	D	L	-	V	V	K	T	D	S	E	W	Y	F	F		
pG960	P	D	I	D	V	C	K	W	E	P		W	D	L	-	V	I	K	T	D	P	S	E	W	Y	F	F	
pG3834_B_rapa	P	E	I	D	V	C	K	W	E	P		W	D	L	-	V	I	K	T	D	Q	P	E	W	Y	F	F	
pG1455	P	E	I	D	V	C	K	W	E	P		W	D	L	-	V	I	K	T	D	Q	Q	E	W	Y	F	F	
pG3805_O_sativa	P	E	V	D	L	Y	K	C	E	P		W	D	L	-	F	L	P	S	K	D	L	E	W	Y	F	F	
pG958	P	E	I	D	L	Y	K	C	E	P		W	D	L	-	F	L	P	S	K	D	L	E	W	Y	F	F	
pG1924	P	E	V	D	L	Y	K	C	E	P		W	D	L	-	F	L	P	S	R	D	P	E	W	Y	F	F	
pG518	P	E	V	D	L	Y	K	C	E	P		W	D	L	-	L	I	P	S	K	D	Q	E	W	Y	F	F	
pG3808_O_sativa	G	E	A	D	L	N	K	C	E	P		W	D	L	-	T	M	G	E	K	-	-	E	W	Y	F	F	
pG3833_G_max	G	E	V	D	L	N	R	S	E	P		W	D	L	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG523	G	E	V	D	L	N	K	A	E	P		W	E	L	-	K	I	G	E	K	-	-	E	W	Y	F	F	
pG514	G	E	V	D	L	N	K	S	E	P		W	E	L	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG3806_O_sativa	A	D	V	N	L	N	N	C	E	P		W	D	L	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG526	G	E	A	D	L	N	K	C	E	P		W	D	L	-	K	M	G	E	K	-	-	E	W	Y	F	F	
pG1454	A	E	V	D	L	Y	K	F	D	P		W	E	L	-	K	M	G	E	K	-	-	E	W	Y	F	F	
	E	V	D	L	K	E	P	W	D	L	P	K	S										E	W	Y	F	F	

FIGURE 27D

G3809_O_sativa	S	P	R	D	R	K	Y	P	N	G	V	R	P	N	R	A	A	G	S	G	Y	W	K	A	T	G	T	D	K	P		
pG3807_O_sativa	C	P	R	D	R	K	Y	P	S	G	S	R	T	N	R	S	T	E	A	G	A	G	Y	W	K	A	T	G	K	D	R	P
pG521	C	P	R	E	K	K	Y	P	K	G	G	K	A	N	R	S	T	E	C	E	A	G	Y	W	K	T	T	G	R	D	R	D
pG3041	S	M	L	D	K	K	Y	R	N	G	S	K	T	N	R	A	T	E	M	E	C	G	Y	W	K	T	T	G	K	D	R	E
pG3832partial_B_oleracea	G	R	K	E	S	R	Y	N	R	G	E	R	Q	K	R	K	T	K	S	G	Y	W	K	K	T	T	G	N	T	L	P	
pG515	R	P	K	E	N	K	Y	G	R	G	D	Q	Q	M	R	K	T	K	S	G	F	W	K	S	T	T	G	R	P	K	P	
pG2053	S	P	K	E	N	K	Y	G	R	G	D	Q	Q	I	R	K	T	K	S	G	Y	W	K	I	T	T	G	K	P	K	P	
pG516	G	R	K	E	N	K	Y	G	K	G	D	R	Q	I	R	K	T	K	S	G	F	W	K	K	T	T	G	V	T	M	D	
pG517	S	V	K	E	M	K	Y	N	R	G	D	Q	Q	R	R	T	T	N	S	G	F	W	K	K	T	T	G	K	T	M	T	
pG513	C	P	L	D	R	K	Y	P	S	G	S	R	M	N	R	A	T	V	A	G	Y	W	K	A	T	T	G	K	D	R	K	
pG960	C	P	R	D	R	K	Y	P	N	G	H	R	S	N	R	A	T	D	S	G	Y	W	K	A	T	T	G	K	D	R	S	
pG3834_B_rapa	C	P	R	D	R	K	Y	P	S	G	H	R	S	N	R	A	T	D	I	G	Y	W	K	A	T	T	G	K	D	R	T	
pG1455	C	P	R	D	R	K	Y	P	S	G	H	R	S	N	R	A	T	D	I	G	Y	W	K	A	T	T	G	K	D	R	T	
pG3805_O_sativa	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	A	G	Y	W	K	A	T	T	G	K	D	R	K	
pG958	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	A	G	Y	W	K	A	T	T	G	K	D	R	K	
pG1924	G	P	R	D	R	K	Y	P	N	G	F	R	T	N	R	A	T	R	G	G	Y	W	K	A	T	T	G	K	D	R	R	
pG518	S	P	R	D	R	K	Y	P	N	G	S	R	T	N	R	A	T	K	G	G	Y	W	K	A	T	T	G	K	D	R	R	
pG3808_O_sativa	C	V	K	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	S	G	Y	W	K	A	T	T	G	K	D	R	E	
pG3833_G_max	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	S	G	Y	W	K	A	T	T	G	K	D	K	E	
pG523	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	Q	A	G	Y	W	K	A	T	T	G	K	D	K	E	
pG514	C	V	R	D	R	K	Y	P	T	G	L	R	T	N	R	A	T	E	A	G	Y	W	K	A	T	T	G	K	D	K	E	
pG3806_O_sativa	C	H	K	D	R	K	Y	P	T	G	M	R	T	N	R	A	T	A	S	G	Y	W	K	A	T	T	G	K	D	K	E	
pG526	C	Q	R	D	R	K	Y	P	T	G	M	R	T	N	R	A	T	E	S	G	Y	W	K	A	T	T	G	K	D	K	E	
pG1454	S	P	R	D	R	K	Y	P	N	G	A	R	P	N	R	A	T	A	T	S	G	Y	W	K	A	T	T	G	T	D	K	P
	C	P	R	D	R	K	Y	P	G	G	R	T	N	R	A	T			S	G	Y	W	K	A	T	T	G	K	D	R		

FIGURE 27E

G3809_O_sativa	I	S	I	S	E	T	Q	Q	T	V	L	L	G	V	K	K	A	L	V	F	Y	R	G	R	P	P	K	G	T	K	
pG3807_O_sativa	V	I	Y	N	-	-	-	-	S	Q	T	V	G	M	K	R	T	L	V	F	H	L	G	K	P	P	R	G	D	R	
pG521	V	S	Y	N	-	-	-	-	D	E	V	T	G	K	I	R	T	L	I	Y	H	Y	G	K	I	P	R	G	D	R	
pG3041	I	L	N	G	-	-	-	-	S	K	V	V	G	M	K	K	T	L	V	Y	H	K	G	R	A	P	R	G	E	R	
pG3832partial_B_oleracea	I	T	R	K	R	-	G	N	H	E	T	I	G	E	K	R	V	L	M	F	Y	M	S	G	S	R	-	-	-	-	
pG515	I	M	R	-	-	-	-	N	R	Q	Q	I	G	E	K	K	I	L	M	F	Y	T	S	K	E	S	-	-	-	K	
pG2053	I	L	R	-	-	-	-	N	R	Q	E	I	G	E	K	K	V	L	M	F	Y	M	S	K	E	L	G	S	-	K	
pG516	I	M	R	K	T	-	G	D	R	E	K	I	G	E	K	R	V	L	V	F	K	N	H	G	S	-	-	-	-	K	
pG517	V	M	R	K	R	-	G	N	R	E	K	I	G	E	K	R	V	L	V	F	K	N	R	D	G	S	-	-	-	K	
pG513	I	K	S	G	-	-	-	K	T	K	I	I	G	V	K	R	T	L	V	F	Y	T	G	R	A	P	K	G	T	R	
pG960	I	K	S	-	-	-	-	K	K	T	L	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	E	R	
pG3834_B_rapa	I	K	S	-	-	-	-	K	K	M	I	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	I	G	E	R	
pG1455	I	K	S	-	-	-	-	K	K	M	I	I	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	R	G	E	R	
pG3805_O_sativa	V	N	S	Q	-	-	-	R	-	R	A	V	G	M	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	S	R	
pG958	V	T	S	H	-	-	-	S	-	R	M	V	G	T	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	S	R	
pG1924	V	T	S	Q	-	-	-	S	-	R	A	I	G	M	K	K	T	L	V	Y	Y	R	G	R	A	P	Q	H	G	I	R
pG518	V	S	W	R	-	-	-	D	-	R	A	I	G	T	K	K	T	L	V	Y	Y	R	G	R	A	P	H	G	I	R	
pG3808_O_sativa	I	F	R	G	-	-	-	K	-	A	L	V	G	M	K	K	T	L	V	F	Y	T	G	R	A	P	R	G	G	I	R
pG3833_G_max	I	F	R	G	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	K	G	R	A	P	K	G	E	K	
pG523	I	F	R	G	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	Q	K	
pG514	I	Y	R	G	-	-	-	K	-	S	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	Q	K	
pG3806_O_sativa	I	F	R	G	-	-	-	R	G	L	L	V	G	M	K	K	T	L	V	F	Y	M	G	R	A	P	R	G	E	K	
pG526	I	F	K	G	-	-	-	K	G	C	L	V	G	M	K	K	T	L	V	F	Y	R	G	R	A	P	K	G	E	K	
pG1454	V	L	A	S	D	-	-	G	N	Q	K	V	G	V	K	K	A	L	V	F	Y	S	G	K	P	P	K	G	V	K	
	I																													K	

FIGURE 27F

	220	230	240
G3809_O_sativa	- - - - Y T S N M K Q L A S - - - - -	- - - - -	- - - - -
pG3807_O_sativa	- - - - D A C V L C K I F Q K S G P - - - - -	- - - - -	- - - - -
pG521	- - - - D T Y V L C V L F K K N G - - - - -	- - - - -	- - - - -
pG3041	- - - - D A F V L C R I F Q K S G S - - - - -	- - - - -	- - - - -
pG3832partial_B_oleracea	- - - - - - - - - - - - - - - - - - -	- - - - -	- - - - -
pG515	- - - - - T L C K V M F N G G M - - - - -	- - - - -	- - - - -
pG2053	- - - - - T I C K V M F K G D V - - - - -	- - - - -	- - - - -
pG516	- - - - - - - - - - - G E R - - - - -	- - - - -	- - - - -
pG517	- - - - - T V C K V E F K G E E - - - - -	- - - - -	- - - - -
pG513	- - - - N P F V V C K L F K K Q D I V - - - - -	- - - - -	- - - - -
pG960	- - - - S P Y V L C R L F H K P D D - - - - -	- - - - -	- - - - -
pG3834_B_rapa	- - - - S P Y V L C R L F H K P S D - - - - -	- - - - -	- - - - -
pG1455	- - - - N P Y V L C R L F H K P S D S - - - - -	- - - - -	- - - - -
pG3805_O_sativa	- - - - D A Y A L C R V F K K T A P G P K I E H Y G V V H H	- - - - -	- - - - -
pG958	- - - - D A Y A L C R V F K K S A - - - - -	- - - - -	- - - - -
pG1924	- - - - D S Y A L C R V F K K - - - - -	- - - - -	- - - - -
pG518	- - - - D A Y A L C R V F K K I V - - - - -	- - - - -	- - - - -
pG3808_O_sativa	- - - - Q E W V L C R V F K K S - - - - -	- - - - -	- - - - -
pG3833_G_max	- - - - N E W V I C R V F Q K S S - - - - -	- - - - -	- - - - -
pG523	- - - - N E W V I C R V F H K T A - - - - -	- - - - -	- - - - -
pG514	- - - - - K W V C R V F Q K S A - - - - -	- - - - -	- - - - -
pG3806_O_sativa	- - - - E E W A V C R V F N K D - - - - -	- - - - -	- - - - -
pG526	- - - - D E W V V C R V F H K N N - - - - -	- - - - -	- - - - -
pG1454	L R L D D W V L C R I Y K K N N - - - - -	- - - - -	- - - - -
	. V L C R V F . K	- - - - -	- - - - -

FIGURE 27H

	250	260	270
G3809_O_sativa	- - - - -	- - - - -	- - - - -
pG3807_O_sativa	- - - - -	- - - - -	- - - - -
pG521	- - - - -	- - - - -	- - - - -
pG3041	- - - - -	- - - - -	- - - - -
pG3832partial_B_oleracea	- - - - -	- - - - -	- - - - -
pG515	- - - - -	- - - - -	- - - - -
pG2053	- - - - -	- - - - -	- - - - -
pG516	- - - - -	- - - - -	- - - - -
pG517	- - - - -	- - - - -	- - - - -
pG513	- - - - -	- - - - -	- - - - -
pG960	- - - - -	- - - - -	- - - - -
pG3834_B_rapa	- - - - -	- - - - -	- - - - -
pG1455	- - - - -	- - - - -	- - - - -
pG3805_O_sativa	- - - - -	- - - - -	- - - - -
pG958	- - - - -	- - - - -	- - - - -
pG1924	- - - - -	- - - - -	- - - - -
pG518	- - - - -	- - - - -	- - - - -
pG3808_O_sativa	- - - - -	- - - - -	- - - - -
pG3833_G_max	- - - - -	- - - - -	- - - - -
pG523	- - - - -	- - - - -	- - - - -
pG514	- - - - -	- - - - -	- - - - -
pG3806_O_sativa	- - - - -	- - - - -	- - - - -
pG526	- - - - -	- - - - -	- - - - -
pG1454	- - - - -	- - - - -	- - - - -

	280	290	300
G3809_O_sativa	L C R I Y K - - - - -	- - - - -	- - - K K
pG3807_O_sativa	E A N G E L S S - - - - -	- - - - -	- - - F A
pG521	D K E E E - - - - -	- - - - -	- - - - -
pG3041	E E D D M T F V P D - - - - -	- - - - -	- - - Q E D L
pG3832partial_B_oleracea	- - - - -	- - - - -	- - - - -
pG515	Q S R R D - - - - -	- - - - -	- - - - -
pG2053	Q S R - D - - - - -	- - - - -	- - - - -
pG516	H T H - - - - -	- - - - -	- - - - -
pG517	Q I H - - - - -	- - - - -	- - - - -
pG513	M S E V S P V F P - - - - -	- - - - -	- - - K T
pG960	S D L V Q E T P S S - - - - -	- - - - -	- - - D A
pG3834_B_rapa	S E M V Q E T D T S - - - - -	- - - - -	- - - R V
pG1455	S E M V Q E T A T S - - - - -	- - - - -	- - - G V
pG3805_O_sativa	S S S F S F P T E T P M D S M H G G F G M Q M S A P H E D G		
pG958	N S G Y P V S P E T G G L T Q L G N N S S S D M E T I E N -		
pG1924	S E R - - - - -	- - - - -	- - - - -
pG518	I S S N T P Y N T A A H I Q P R F G N A N A - - I S D H D -		
pG3808_O_sativa	T D V G P - - - - -	- - - - -	- - - - -
pG3833_G_max	N E M V Y - - - - -	- - - - -	- - - S S
pG523	T G S S - - - - -	- - - - -	- - - - -
pG514	T D F N P - - - - -	- - - - -	- - - S -
pG3806_O_sativa	R N D S F - - - - -	- - - - -	- - - D L
pG526	R M D - - - - -	- - - - -	- - - S L
pG1454	F R K I P - - - - -	- - - - -	- - - - -

FIGURE 27J

	310	320	330
G3809_O_satva	E A N Q Q L Q H Y I D - - - - -	- - - - -	- - - - -
pG3807_O_satva	F S V P P C A L E S S N - - - - -	- - - - -	G R L N T A G
pG521	Y T Q N H L V A G P S - - - - -	- - - - -	- - - - K E
pG3041	G S E D H V Y V H M D D I D Q K S E N F V V Y D A I P I P L	- - - - -	- - - - P L
pG3832partial_B_oleracea	- - - - -	- - - - -	- - - - -
pG515	S L I P Q L V N - - - - -	- - - - -	- - N S E G
pG2053	S L I P L L V N - - - - -	- - - - -	- - D S E -
pG516	S L I P P T N N S G V L - - - - -	- - - - -	- - S V E T E G
pG517	S L I P L V N S - - - - -	- - - - -	- - S G S E G
pG513	E E T N P C D V A E S S L V I P S E C R S G Y S V P E V T T	- - - - -	- - S V P E V T T
pG960	A V E K P S D Y S G G C G Y A H S N - - - - -	- - - - -	- - S T A D G
pG3834_B_rapa	H A Q N I S D D T E R C P R D Q G	- - - - -	- - - - -
pG1455	H A L D R S D D T E R C L S D K G N N D V K P D V S V I N N	- - - - -	- - V I N N
pG3805_O_satva	K W M Q F L S E D A F N A T N P F L T N P V S A N F S C L P	- - - - -	- - S C L P
pG958	K W S Q F M S H D T S F N F P P Q S Q - - - - -	- - - - -	- - Y G T I S Y P P
pG1924	- - - - -	- - - - -	- - - - -
pG518	D W S Q Y L S Q N M P T S F S D Y G S - - - - -	- - - - -	- - P Y G P Y L T Q
pG3808_O_satva	S S M P M A D D V V G - - - - -	- - - - -	- - L A P C A L P
pG3833_G_max	S A L P P L T D S S P S - - - - -	- - - - -	- - I G N N T K A L
pG523	- - L P P L T D S S P - - - - -	- - - - -	- - - - Y N D K
pG514	- L L P S L T D S S P - - - - -	- - - - -	- - - - Y N D K
pG3806_O_satva	D L D D F L H L D A D - - - - -	- - - - -	- - - - L P
pG526	E N I D H L L D F S S - - - - -	- - - - -	- - - - L P
pG1454	P S L S M A A A S T G - - - - -	- - - - -	- - - - L H Q H

FIGURE 27K

G3809_O_sativa	340	350	360
pG3807_O_sativa	MMMD D - - - - -	- - - - -	DNDDE - - -
pG521	QQLAVSDN - - - - -	- - - - -	DHCS E TND
pG3041	TSLAK - - - - -	- - - - -	ASHSYAP -
pG3832partial_B_oleracea	NFIHGESS - - - - -	NNVE T NYSDSIN	-
pG515	S L H R E D P S Q F G D V L Q E A P I E D A K L T E E L V	- - - - -	- - - - -
pG2053	- - - - -	- - - - -	- - - - -
pG516	S L F H S Q - - - - -	- - - - -	- - - - -
pG517	S S F H S Q - - - - -	- - - - -	- - - - -
pG513	T G L D D I D - - - - -	- - - - -	- - - - -
pG960	T M I E A P E - - - - -	- - - - -	- - - - -
pG3834_B_rapa	- - - - -	- - - - -	- - - - -
pG1455	T S V N H A E T S R A K D - - - - -	- - - - -	- - - - -
pG3805_O_sativa	S K V D V A L E - - - - -	- - - - -	- - - - -
pG958	S K V D I A L E - - - - -	- - - - -	- - - - -
pG1924	- - - - -	- - - - -	- - - - -
pG518	S K V N T E V Q - - - - -	- - - - -	- - - - -
pG3808_O_sativa	P L M D V S - - - - -	- - - - -	- - - - -
pG3833_G_max	S V T D S A Y - - - - -	- - - - -	- - - - -
pG523	T K T E P V Y - - - - -	- - - - -	- - - - -
pG514	T K T E P V Y - - - - -	- - - - -	- - - - -
pG3806_O_sativa	P L I D - - - - -	- - - - -	- - - - -
pG526	P L I D - - - - -	- - - - -	- - - - -
pG1454	H N V S R S M N - - - - -	- - - - -	- - - - -

FIGURE 27L

[illegible]

FIGURE 270

G3809_O_sativa	S I S	460	470	480
pG3807_O_sativa	S L P			
pG521	P L T			
pG3041	C Y N			
pG3832partial_B_oleracea	- - -			
pG515	F M H			
pG2053	N M K			
pG516	S M Q			
pG517	F M Q			
pG513	- - S			
pG960	L L E			
pG3834_B_rapa	V L D			
pG1455	E I A			
pG3805_O_sativa	D M Q			
pG958	- - N			
pG1924	N L D			
pG518	A L E			
pG3808_O_sativa	F Y N			
pG3833_G_max	L Y Q			
pG523	L Y Q			
pG514	P A N			
pG3806_O_sativa	S Y Q			
pG526	N I G			
pG1454	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			
	T D S			
	V F H			
	N N N			
	Q S Y			
	E G Q			
	F Y N			
	L Y Q			
	L Y Q			
	P A N			
	S Y Q			
	N I G			

	520	530	540
G3809_O_sativa	- - - - -	- - - - -	- - - - -
pG3807_O_sativa	S - - - -	- - - - -	- - - - -
pG521	F S - - -	- - - - -	- - - - -
pG3041	G F D F E D Y L T F F D E T F D P S Q L M G N E D V F F D Q	- - - - -	- - - - -
pG3832partial_B_oleracea	- - - - -	- - - - -	- - - - -
pG515	T - - - -	- - - - -	- - - - -
pG2053	T - - - -	- - - - -	- - - - -
pG516	T - - - -	- - - - -	- - - - -
pG517	T - - - -	- - - - -	- - - - -
pG513	E Q I P Y E P - - - - -	- - - - -	- - - - -
pG960	A Q L Q Y G S - E G G A S G W P S D T N S Y S D L V Q - -	- - - - -	- - - - -
pG3834_B_rapa	- - - - -	- - - - -	- - - - -
pG1455	S G S Q Q F V P D I L A S R W V S E Q N V D S K E A V E I L	- - - - -	- - - - -
pG3805_O_sativa	P T E D I I A Q Y P I K V T A D N S G E A G H R M T D P T D	- - - - -	- - - - -
pG958	I P I E D I W R Y H N D N Q E Q E H H D Q D G M D V N N N N	- - - - -	- - - - -
pG1924	- - - - -	- - - - -	- - - - -
pG518	G N I E I D D F F S F E N Q A Q - - - - -	- - - - -	- - - - -
pG3808_O_sativa	Y - - - -	- - - - -	- - - - -
pG3833_G_max	S - - - -	- - - - -	- - - - -
pG523	- - - - -	- - - - -	- - - - -
pG514	- - - - -	- - - - -	- - - - -
pG3806_O_sativa	- - - - -	- - - - -	- - - - -
pG526	- - - - -	- - - - -	- - - - -
pG1454	- - - - -	- - - - -	- - - - -

FIGURE 27R

	580										590										600																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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pG3807_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	E	D	L	I	P	P	T	L	E	V	L																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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pG1455	F	N	Y	N	V	N	Q	P	E	Q	S	S	F	E	Q	S	H	V	D	R	N	I	S	P	S	N	I	S	P	S	N	I	F	E	F																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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pG958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	L	D	K	N	D	H	E	T	T	S	S	C	F	E	V	V	K	K	V	E	V																																																																																																																																																																																																																																																																																																																																																																																																																																														
pG1924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																															
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pG3808_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																																																																																																																												
pG3833_G_max	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FIGURE 27T

G3809_O_sativa	E E Y Y S I S I S T A D M L H A S S S T S N N K - - - - -	610	620	630
pG3807_O_sativa	K T E Q Y L E L N D L S F S L A D D P D P C N L L L T T N L			
pG521	R H P D G F V N K E A P V F L G D G N F S G M F D L S N D Q			
pG3041	R S K H V V E E K E K D E A S C S K Q V D A D A T E F E P D			
pG3832partial_B_oleracea				
pG515	S P T S T I N L V S L T Q E V S Q A L I T S I D T A E K K K			
pG2053	- - - D Q I N L V S L T Q E V S Q A L I T S I D T P E K I K			
pG516	S P N - S I K L V S L A Q E V S K T P G T G I D N D - - -			
pG517	S P D S T V Q L V S L T Q E V S Q G P G - - - - -			
pG513	R A R R A Q A P G C A E Q F V M Q G D A S R R L R L Q V N L			
pG960	R A R Q P Q N - R Q S T G L I N Q G I A P R R I R L Q L Q S			
pG3834_B_rapa				
pG1455	K A R S R E N Q R D L D S V V D Q Q G T A P R R I R L Q I E Q			
pG3805_O_sativa	N H R L F V S R V A A K T F F H R I E P S K K V S F H S N			
pG958	S H G L F V T T R Q V T N T F F Q Q I V P S Q T V I V Y I N			
pG1924	- -			
pG518	N H K M L I S T R Q T T E I L Y Y Q V V P S Q I L K I H I N			
pG3808_O_sativa	G G G W Y C N K G E R E R L S G A S Q D T G - - - - -			
pG3833_G_max	S Q K T S L S T D V K A E I S S L G K R H F E N - - - - -			
pG523	S Q E T G V S N - - - T D N S S V F E F G R K R - - - - -			
pG514	S Q E T G V S T D M N T D I S S D F E F G K R R - - - - -			
pG3806_O_sativa	M A D Q A I R R F C K A E A S T A C F S G A D A - - - - -			
pG526	S S D V N A I N M T T T E V S S G P V M K Q E M - - - - -			
pG1454	D E E Q D A S P S K R F H G V G G G G D C S N - - - - -			

FIGURE 27U

	640										650										660										
G3809_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3807_O_sativa	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG521	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3041	Y	K	Y	P	L	L	K	K	A	S	H	M	L	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3832partial_B_oleracea																															
pG515	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG2053	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG513	N	-	-	-	-	S	H	K	S	E	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG960	-	-	-	-	-	N	S	E	V	K	E	R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3834_B_rapa																															
pG1455	P	L	T	P	V	T	N	K	K	E	R	D	A	D	N	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pG3805_O_sativa	P	-	-	-	-	-	A	A	T	A	V	S	K	A	T	E	K	F	H	F	P	V	T	T	K	V	S	G	R	V	
pG958	P	-	-	-	-	-	T	D	G	N	E	C	C	H	S	M	T	S	K	E	E	V	H	V	R	K	K	I	N	P	
pG1924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG518	P	-	-	-	-	-	V	H	G	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3808_O_sativa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3833_G_max	P	-	-	-	-	-	I	A	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG523	Q	-	-	-	-	-	E	V	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG514	Q	-	-	-	-	-	E	D	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG3806_O_sativa	P	-	-	-	-	-	V	V	D	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG526	G	-	-	-	-	-	M	V	N	G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
pG1454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

FIGURE 27V

	670	680	690
G3809_O_sativa	- - - - -	- - - - -	- - - - - S T Q I N
pG3807_O_sativa	- - - - -	- - - - -	- - - - - D Q N H P E L
pG521	- - - - -	- - - - -	- - - - - V V E L Q D L I Q S
pG3041	- - - - -	- - - - -	- - - - - A I P A P L A N A S E F
pG3832partial_B_oleracea			
pG515	- - - - -	- - - - -	- - - - - P Y D D A Q Q G T E I G
pG2053	- - - - -	- - - - -	- - - - - P Y D D A Q Q G T G A G
pG516	- - - - -	- - - - -	- - - - - A Q Q G T E I G
pG517	- - - - -	- - - - -	- - - - - Q V T V I R
pG513	- - - - -	- - - - -	- - - - - D S T Q L Q F I K K E
pG960	- - - - -	- - - - -	- - - - - E E V N E G H T V I P E
pG3834_B_rapa			
pG1455	- - - - -	- - - - -	- - - - - E E E D E V Q S A M S K
pG3805_O_sativa	S I F S K F K A L I R	- - - - -	- - - - - D K F L M M R
pG958	R I N G V S S T V L G Q W R K F A H V I G F I P M L L L M R		
pG1924	- - - - -	- - - - -	- - - - - W M Q
pG518	- - - - -	- - - - -	- - - - - E E R T M L M E
pG3808_O_sativa	- - - - -	- - - - -	- - - - - L T S S
pG3833_G_max	- - - - -	- - - - -	- - - - - A A A V A
pG523	- - - - -	- - - - -	- - - - - S P S S G
pG514	- - - - -	- - - - -	- - - - - S S S T G
pG3806_O_sativa	- - - - -	- - - - -	- - - - - L L S F P D S
pG526	- - - - -	- - - - -	- - - - - S K S Y E D L
pG1454	- - - - -	- - - - -	- - - - - M S S S M M E

FIGURE 27W

	700	710	720
G3809_O_sativa	F S S I F E P - - - - -	- - - - -	- - - - -
pG3807_O_sativa	E T R F E Q G S - - - - -	- - - - -	- - - - -
pG521	P T P H P P - - - - -	- - - - -	- - - - -
pG3041	P T K D A A I R L H A A Q S S - - - - -	- - - - -	- - - - -
pG3832partial_B_oleracea			
pG515	E H K L G Q E T - - - - -	- - - - -	- - - - -
pG2053	G Q K L G Q E T - - - - -	- - - - -	- - - - -
pG516	E H K L G Q E T - - - - -	- - - - -	- - - - -
pG517	E H K L G E E S - - - - -	- - - - -	- - - - -
pG513	V K D T T E T M T K G C G - - - - -	- - - - -	- - - - -
pG960	A K E A A K Y S E K S G S - - - - -	- - - - -	- - - - -
pG3834_B_rapa			
pG1455	V V E E E P A N L S A Q G T A - - - - -	- - - - -	Q R R I R L
pG3805_O_sativa	P S H S Y Q R L G S K E T T V N E L L Q I V S L L L A P K Q	- - - - -	- - - - -
pG958	C V H R G N S N K N R - - - - -	- - - - -	G S E G Y S R Q P T
pG1924	F I T D D A - - - - -	- - - - -	- - - - -
pG518	E D S D D S - - - - -	- - - - -	- - - - -
pG3808_O_sativa	E V N P G E - - - - -	- - - - -	- - - - -
pG3833_G_max	P M D L A T - - - - -	- - - - -	- - - - -
pG523	P V D L E P - - - - -	- - - - -	- - - - -
pG514	P V D L E P - - - - -	- - - - -	- - - - -
pG3806_O_sativa	I T D Y S Y - - - - -	- - - - -	- - - - -
pG526	C D L R G D - - - - -	- - - - -	- - - - -
pG1454	E T P P L M Q - - - - -	- - - - -	- - - - -

FIGURE 27X

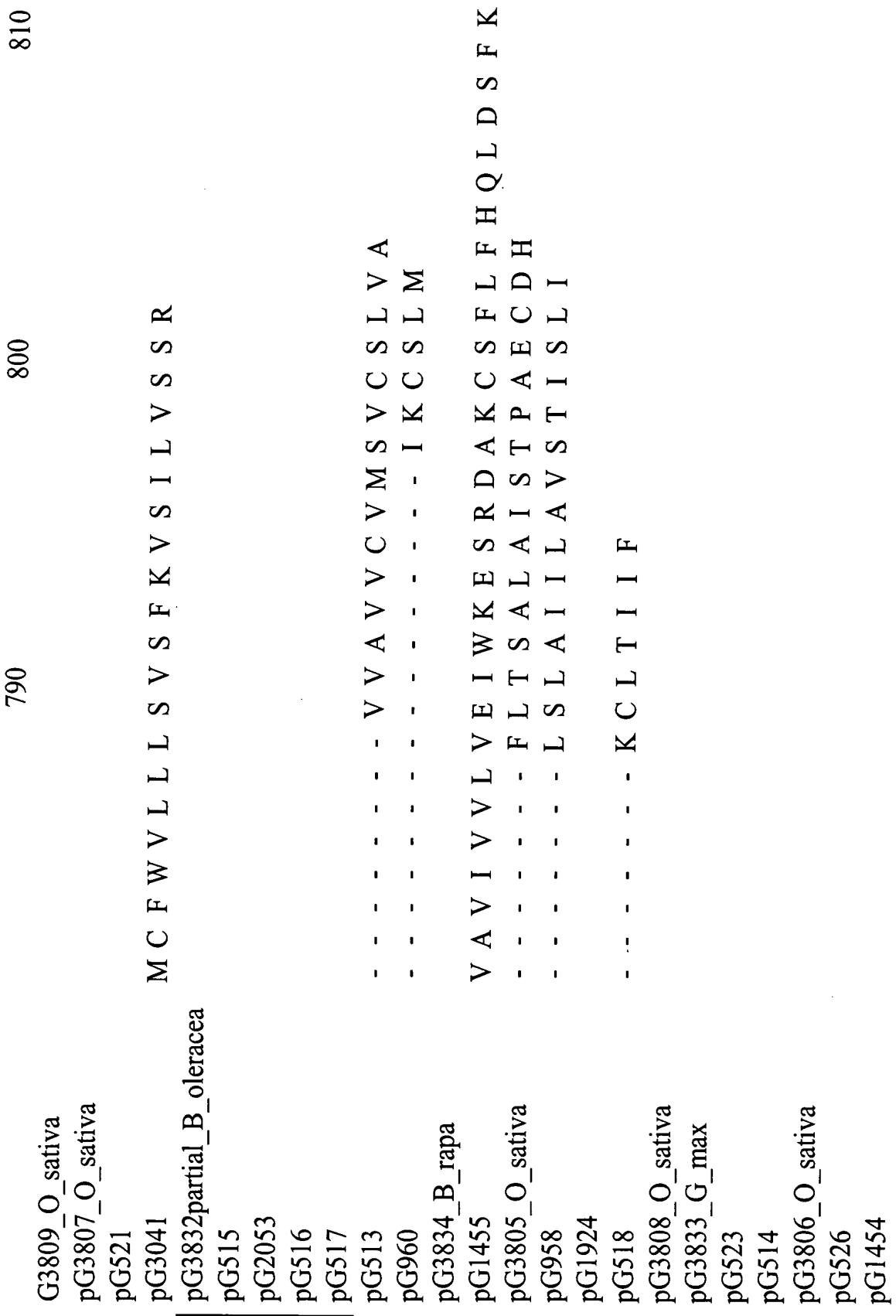


FIGURE 27AA

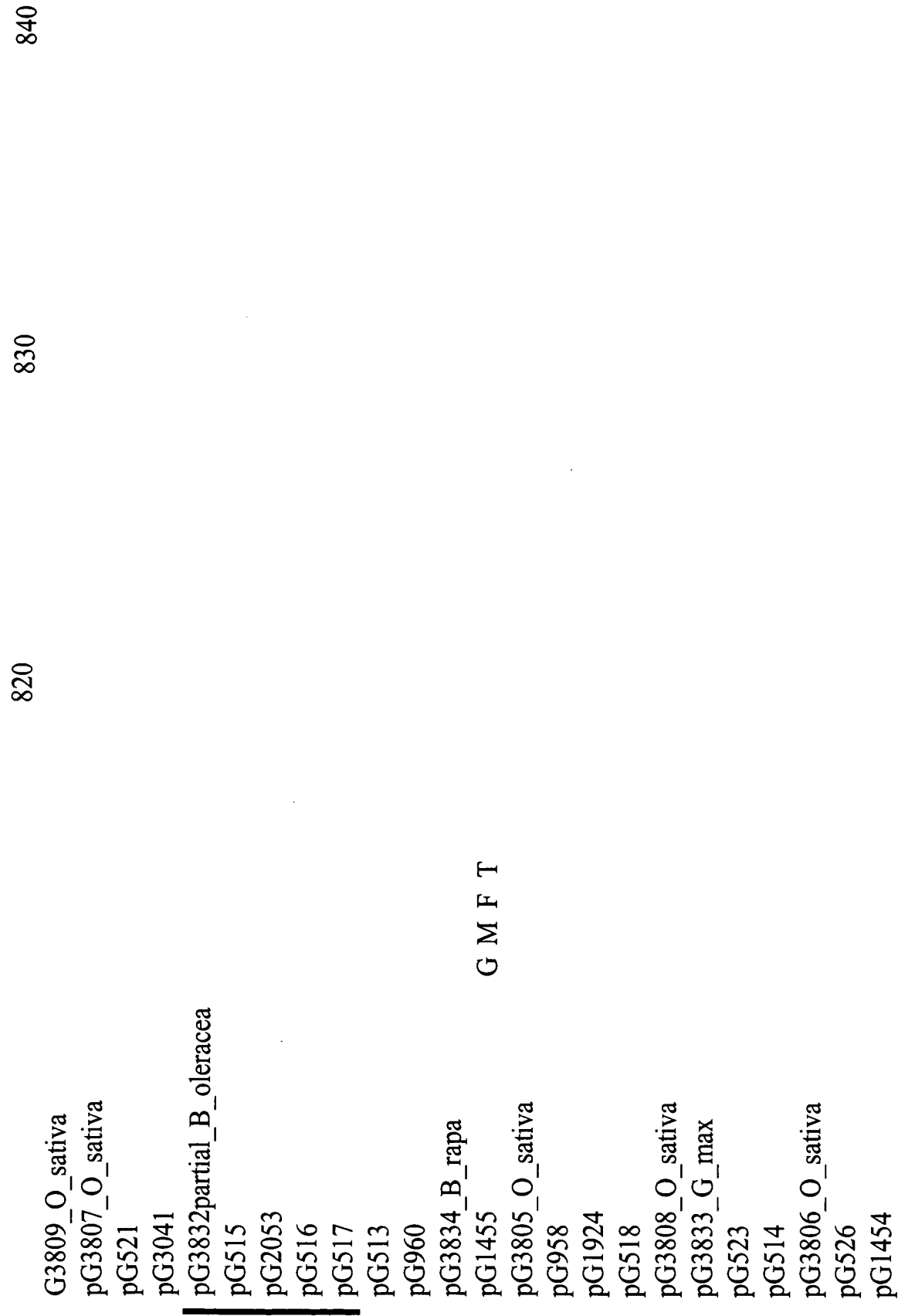


FIGURE 27BB

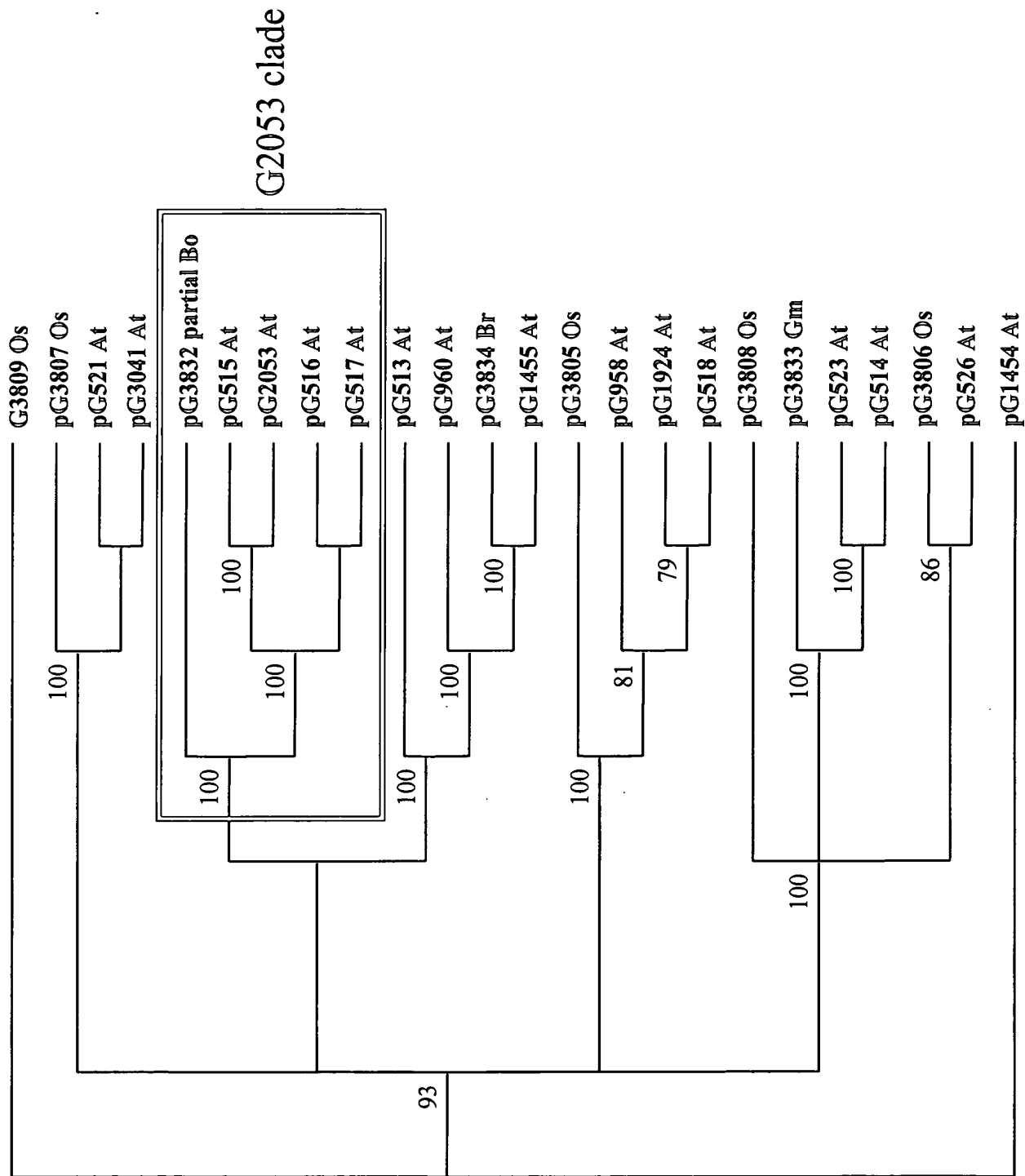


FIGURE 28

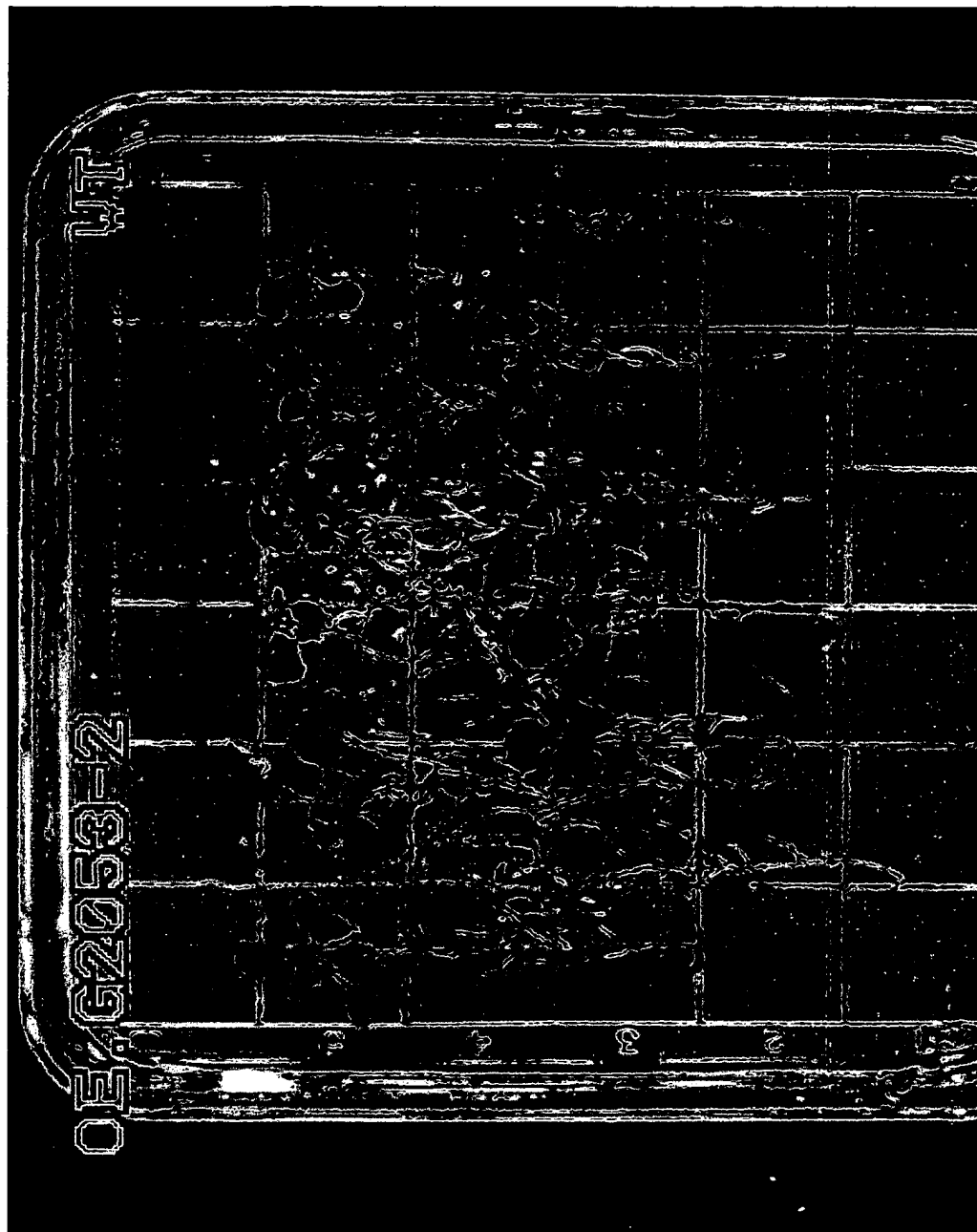


FIGURE 29